

Modern packaging



Nominated for packaging's Hall of Fame. Story on Page 86

March 1949

JR v.22² March-Aug. 1949

TRIPLE YOUR GLUE CO. IS

"Attack is the best defense"

Napoleon



From a painting by J. David. Courtesy of the Metropolitan Museum of Art.

Meet rising competition with a better quality glue that will speed up production... reduce assembly line rejects... provide better protection during shipping and rehandling... present a more attractive product at the final point of sale.

Remember this: Low cost producers regard glue as a service—not a commodity—that definitely affects production and operating costs.

Here's an actual example: A field survey shows that container flaps that become unsealed during shipping cause 30.8% of all damage considered to be under the shippers' control. Think of what this adds to operating, labor and material costs!

The answer? National's *multiple service* case sealing glue that costs three times as much as ordinary glue.

SAFE-LOK seals with a tougher, more durable bond that is unaffected by temperature and humidity variations or the shipping impacts that ordinarily cause cases to open in transit and permit pilferage, breakage and the consequent loss of customers' good will or business.

SAFE-LOK requires less compression time...bonds a wider variety of container surfaces and stocks...gives greater effective mileage...and provides the higher sealing speeds needed to handle multiple feed labeling units.

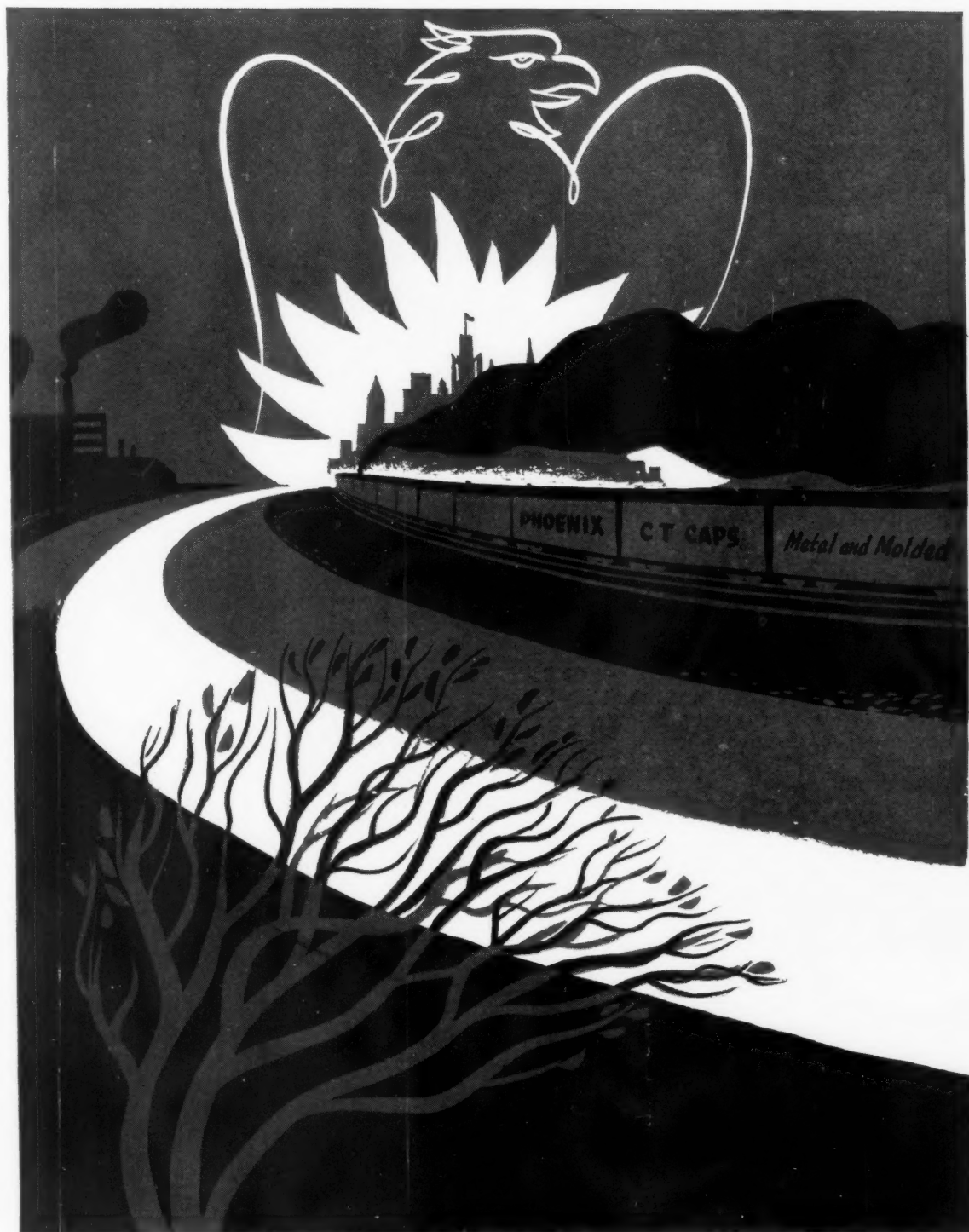
SAFE-LOK — a light colored 'RESYN'® emulsion adhesive that comes ready for use — is now being used by the most aggressively sales-minded and cost-conscious companies in the country. Address: 270 Madison Ave., NEW YORK 16; 3641 So. Washtenaw Ave., CHICAGO 32; 735 Battery St., SAN FRANCISCO 11, and other principal cities. In CANADA: Meredith, Simmons & Co., Ltd., TORONTO and MONTREAL. In ENGLAND: National Adhesives, Ltd., SLOUGH.

National
ADHESIVES

EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE

tech

2 v.



PHOENIX METAL CAP CO. ★ Metal Caps for Glass Packages ★ Chicago 8, Brooklyn 18

Modern packaging



Vol. 22 No. 7 March 1949

GENERAL

Contract packaging 75

What it is and what it does. Manufacturers in many fields find economy in "farming out" the packaging job to specialists.

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The new magic drug has a showplace packaging plant at Merck, where sterile-handling facilities approach perfection.

Hinds Honey & Almond Cream 86

No. 3 in our Hall of Fame cover series. Packaging made it the father of a \$32,000,000 industry and alert packaging and promotion for 74 years have helped sustain its fame as the world's best known hand lotion.

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Conti Castile Shampoo

GOES TO

Milady's Head

CARTONED BY

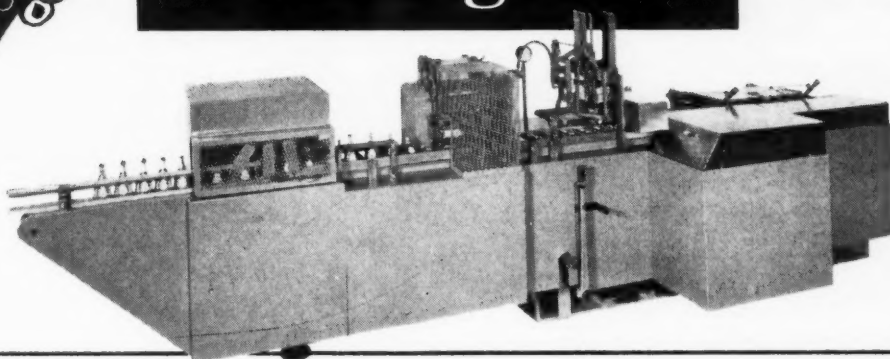
Redington

TYPE 23

INSTANTLY ADJUSTABLE to Conti's One and Five-ounce size bottles—or to any other sizes in between!

SIMPLY moving numbered parts to proper markings completes adjustment.

GUARANTEED SPEED: 120 Five-ounce packages per minute—150 One-ounce packages per minute.



Other Outstanding Redington Features Offer:

CONTINUOUS loading mechanism... skip cartoning...turned and ground shafting...vari-speed drive...safety throw-out...and more.

THEY ALL ADD UP to quick, economical, trouble-free cartoning production for many of America's leading package-goods manufacturers!

WHETHER YOURS is a single product or a large line...a simple or a difficult packaging problem...call on REDINGTON for expert help!

REDINGTON'S EASY, LOW-COST OPERATION

To package the unusual Conti Shampoo bottles, cartons in collapsed form are stacked in the magazine of the Redington. Unfolded circulars are stacked in a second magazine. Bottles are then brought into the machine standing upright on intake belt . . . then placed in a horizontal position in pockets of intake conveyor.

Now a circular is fed from its magazine and given two folds parallel to its long dimension. This forms a folded circular approximately 7" x 1", which is then placed over top of bottle from side to side. A carton is now fed from its magazine, expanded, the bottle with circular inserted, and the carton closed by tucking in the end flaps.

F. B. REDINGTON CO. (Est. 1897) 110-112 S. SANGAMON ST., CHICAGO 7, ILL.



AUTOMATIC CARTONING • WRAPPING • SPECIAL PACKAGING



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Member, Audit Bureau of Circulations
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MR. STORK'S AN ERRATIC BIRD

IF YOU'RE A MERCHANDISER of packaged consumer goods, it will pay you to take a look at what's happening and what will happen to the age levels of your principal markets. It may affect your package planning—long range—more than you know.

Right now, if you're a packager of baby products, your market is shrinking. The national birth rate that jumped when war began from a steady 18 per thousand to 20, 21, 23.3 and finally—in 1947—to an all-time high of 26.2, is now receding. It was 24 in 1948 and is estimated at 21 for 1949.

These abnormal waves of population will do more than tax school facilities as they roll from one age group to the next; they will create special demands for packaged products directed at their various age levels.

If you sell candy, pencils, bicycles, children's clothing—think of this: The nation's elementary schools, with 18.6 million enrolled this year, have only begun to feel the rush. In 1950 the elementary school population will be 20 million; in 1952, 22 million; by 1957, a peak of 26.6 million—nearly half again as many as now.

Follow this through and see what happens: the high-school teen-age group—still shrinking due to low birth rates in the depression '30s—will catch the inundation in the early '50s and, at peak in 1960, the teen-age market will comprise 8.1 million individuals, as against a little more than 6 million now. The colleges will be hit by this same wave four years later and will reach a peak in the population group in 1964-65. Thereafter, the added millions of war babies will move out to become wage earners and home makers.

There's one thing about these statistics—they're actuarial, as certain as death and taxes. It's one business projection you can rely upon.

The Editors

TIGARD
Oregon Walnuts
TIGARD BRAND

Tip Top MIXED NUTS
1 LB. NET WEIGHT
SELECTED MIXED NUTS IN THE SHELL
DA MARE BROS.

Gulf Kist
TOP QUALITY PEANUTS
IN THE SHELL
PACKED BY SOUTHEASTERN PECAN CO. WATCROSS, GA.

BELL BUOY Brand
BRAZIL NUTS
PACKED BY W. H. ROBINSON, INC. CAIRO, GA.

EHLERS GRADE "A" MIXED NUTS
CONTAINS: WALNUTS, ALMONDS, PECANS, BRAZILS, FILBERTS
PACKED & DISTRIBUTED BY ALBERT EHLERS, INC. BROOKLYN, NEW YORK

MISTLETOE BRAND
MIXED NUTS
CONTAINS: WALNUTS, BRAZILS, FILBERTS, ALMONDS
WM. A. HIGGINS
SHELLED AND UN-SHELLED

South America's Finest
BLUE RIBBON
LARGE BRAZIL NUTS
NET WEIGHT ONE POUND

Sunset California
WALNUTS
NET WT. ONE POUND

DAVE SWEET Beans
PACKED BY W. H. ROBINSON, INC. CAIRO, GA.

MEDIUM SIZE California
DIAMOND branded
WALNUTS
NET WEIGHT ONE POUND

BROADWAY MIXED NUTS
WALNUTS, ALMONDS, BRAZILS, PECANS, FILBERTS
PACKED BY THE GRAHAM CO., INC. NEW YORK, N.Y.

ORANGE FILBERTS
KIRATE Brand

AWAY 1 LB. NET
BROADWAY MIXED NUTS
WALNUTS, ALMONDS, BRAZILS, PECANS, FILBERTS
PACKED BY THE GRAHAM CO., INC. NEW YORK, N.Y.

MOND NUTS

A&P

Nut packers will tell you . . . CELLOPHANE PACKAGES PAY!

Nationally-known nut packers, some of whose Dobeckmun-made bags are illustrated, have definitely proved the value of switching to cellophane packages.

They tell us that the full transparency of cellophane, plus brilliant Dobeckmun printing, vastly steps up display values and creates appetite appeal. It lengthens the selling season from "holiday-time" to year 'round. They say they just can't do business without cellophane.

Ask at the retail level, too. Dealers will tell you of increased impulse buying—and of definite brand identification and remembrance that bring repeat sales.

These same principles apply to most products which can be packed and sold in attractive, transparent cellophanes and other films, in bags, sheets or rolls, processed by Dobeckmun. Our package and marketing specialists will co-operate with you to design and supply the most effective package for your products.

The Dobeckmun Company, Cleveland 1, Ohio; Berkeley 2, Calif.

Branch offices:

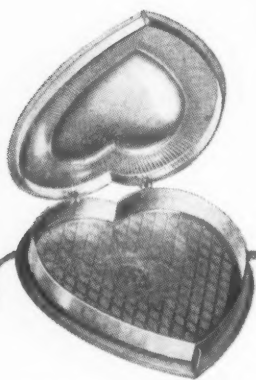
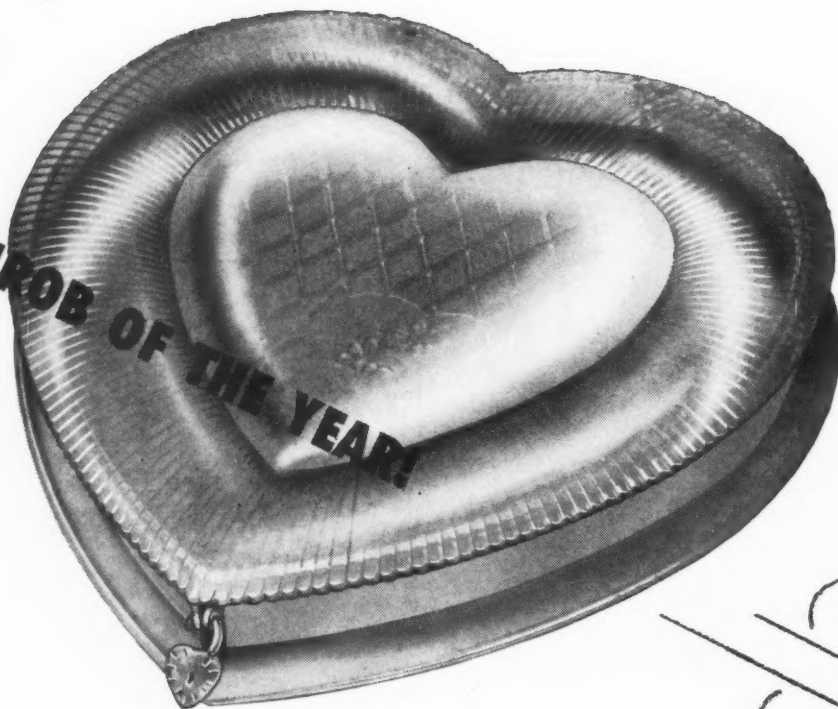
Atlanta, Boston, Chicago, Cincinnati, Los Angeles, New York, Philadelphia, Portland, St. Louis, St. Paul and Seattle. Representatives everywhere.

DOBECKMUN

• Self-selling packages in processed films and foils •

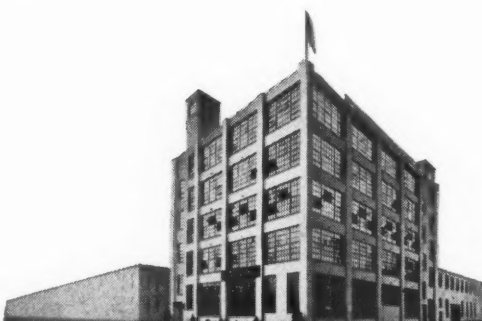
A Packaging Gem

THE HEART THROB OF THE YEAR!



With consumer buying habits keyed to self-service and impulse buying, your packaged product must attract quick attention and create desire as never before. That's why more and more manufacturers are turning to plastics and to Worcester Moulded Plastics for package suggestions. Our experienced personnel, well versed in modern packaging requirements, stands ready to produce a selling package for you—one that draws the eye and loosens customers' purse strings. What's more, with our extensive services and our plastic packaging experience working for you, you're guaranteed a volume production to dovetail with that of your product. If you're considering plastic packaging for an old product, or looking for packaging suggestions for a new one, call on us. Let Worcester Moulded Plastics help you add premium value to your packaging at comparatively low cost.

Courtesy of Plasticraft Mfg. Co.
200 Fifth Avenue
New York 10, New York



Custom Injection Moulding
WORCESTER MOULDED PLASTICS CO.
 14 HYGEIA STREET, WORCESTER 8, MASS.
 17 East 42nd St., New York 17, N. Y.
 130 West Chippewa St., Buffalo 2, N. Y.

Now-pennies put glamour in your wife's workshop!



Marvalon, made by the Munising Paper Company, Chicago, Ill.

TRUST the little woman to pretty-up the place she spends a lot of time in. Trust her, too, to discover a material for her kitchen that's high in glamour, low in cost and has dozens of uses.

That's why she chooses Marvalon, the amazing new decorative material that can be used for shelving and table covers as shown in the picture of the glamourized kitchen. It is made from reinforced cellulose fibre and coated with Geon polyvinyl chloride resin.

The novel idea of coating reinforced cellulose fibres with Geon gives Marvalon its amazing range of qualities that make it so useful. It won't crack, peel or fray. It is stain resistant, odorless and so easily washable—tough enough for wall covers. The skillful use of Geon in this new development opens up possibilities for new products and improvements in others. Perhaps it will give you an idea. If so, tell us and we will send you information on how Geon polyvinyl materials might be used for your product.

Remember, we make no finished products from any of the raw materials we manufacture. We invite you, however, to take advantage of our technical service for any problems or special applications you may have in mind. Write to B. F. Goodrich Chemical Company, Dept. S-2, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ont.



B. F. Goodrich Chemical Company

A DIVISION OF
THE B. F. GOODRICH COMPANY

GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers

Pioneer packages



get a
Bold Look



Milprint Lustrro printed heat sealing aluminum foil overwraps.

■ Packaged foods must do their own self selling job in the retail store these days. It's no job for "shrinking violet" packages.

■ That's why good looking, hard selling Pioneer packages are capturing more consumer dollars in their markets. Milprint heat sealing aluminum foil protects the product quality. Milprint Lustrro printing colorfully pictures the product and tells how to use it best.

■ Whether you package foods or fashions—toys or tobacco you'll find the right package at Milprint where you have the widest choice of packaging materials and printing processes available anywhere.

For proof, call your local Milprint man or write today.



Try Milprints "Follow through" Service

Here's where you get everything in printing and lithography—car cards, posters, displays, booklets, package inserts—to help sell your frozen foods. Illustrated: Libby Poster lithographed by Milprint.

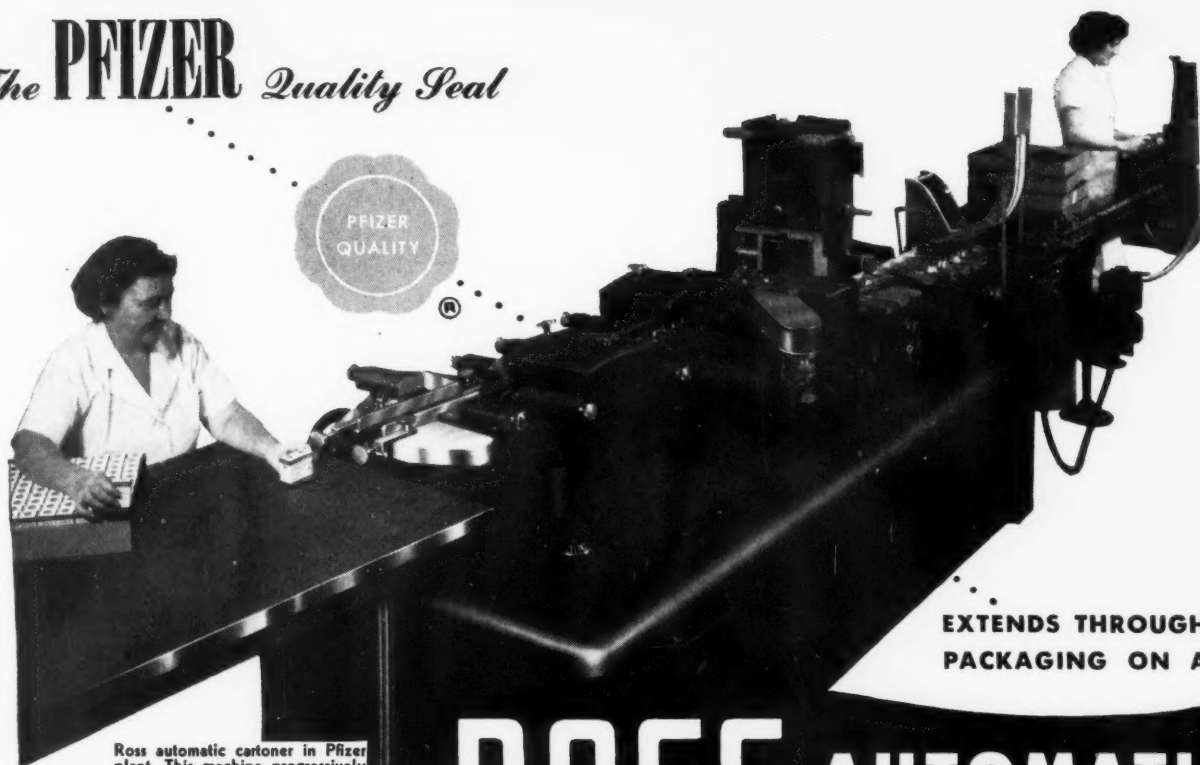
Milprint INC.
PACKAGING MATERIALS
LITHOGRAPHY & PRINTING

GENERAL OFFICES, MILWAUKEE, WISCONSIN, SALES OFFICES IN ALL PRINCIPAL CITIES

Printed Cellophane, Pliofilm, Acetate, Glassine, Plastic Films, Coatings, Lithographed Displays, Printed Promotional Material.

MODERN PACKAGING

The **PFIZER** *Quality Seal*



Ross automatic cartoner in Pfizer plant. This machine progressively erects the carton, tuck seals the top flaps, inserts literature with the load, then tuck seals the bottom flaps.



Pfizer products are used the world over. Illustration shows how vials of penicillin are loaded on a Ross machine into cartons mechanically erected, and circulars wrapped over bottle tops.

EXTENDS THROUGH
PACKAGING ON A

ROSS **AUTOMATIC CARTONER**

Chas. Pfizer & Co., Inc. of New York, manufacturing chemists since 1849, stress the *known* quality of their chemicals and antibiotics. Pfizer's high standards result in part from the proper selection and continuous supervision of manufacturing methods.

Pfizer uses a Ross automatic cartoner, shown above, to speedily, economically and neatly carton their antibiotics, such as penicillin and streptomycin.

You can save cartoning time and money through the speed and dependability of the Ross machine. Get all the facts on the Ross way . . . the new and better way to mechanically handle all cartoning operations. Mail the coupon today for free literature.

Mail Coupon for Free Catalog



View of loading section on Ross machine. Note circulars positioned in front of vials ready to be inserted with the load. Specially built code dater and printer in upper left.

A. H. ROSS COMPANY, INC.
Subsidiary of Rockwell Manufacturing Co.
Box 998, Dayton 1, Ohio

B-249



Gentlemen:

Please send me a copy of your latest bulletin describing Ross automatic and semi-automatic cartoning machines.

COMPANY _____

STREET _____

CITY _____

ZONE _____ STATE _____

YOUR NAME _____

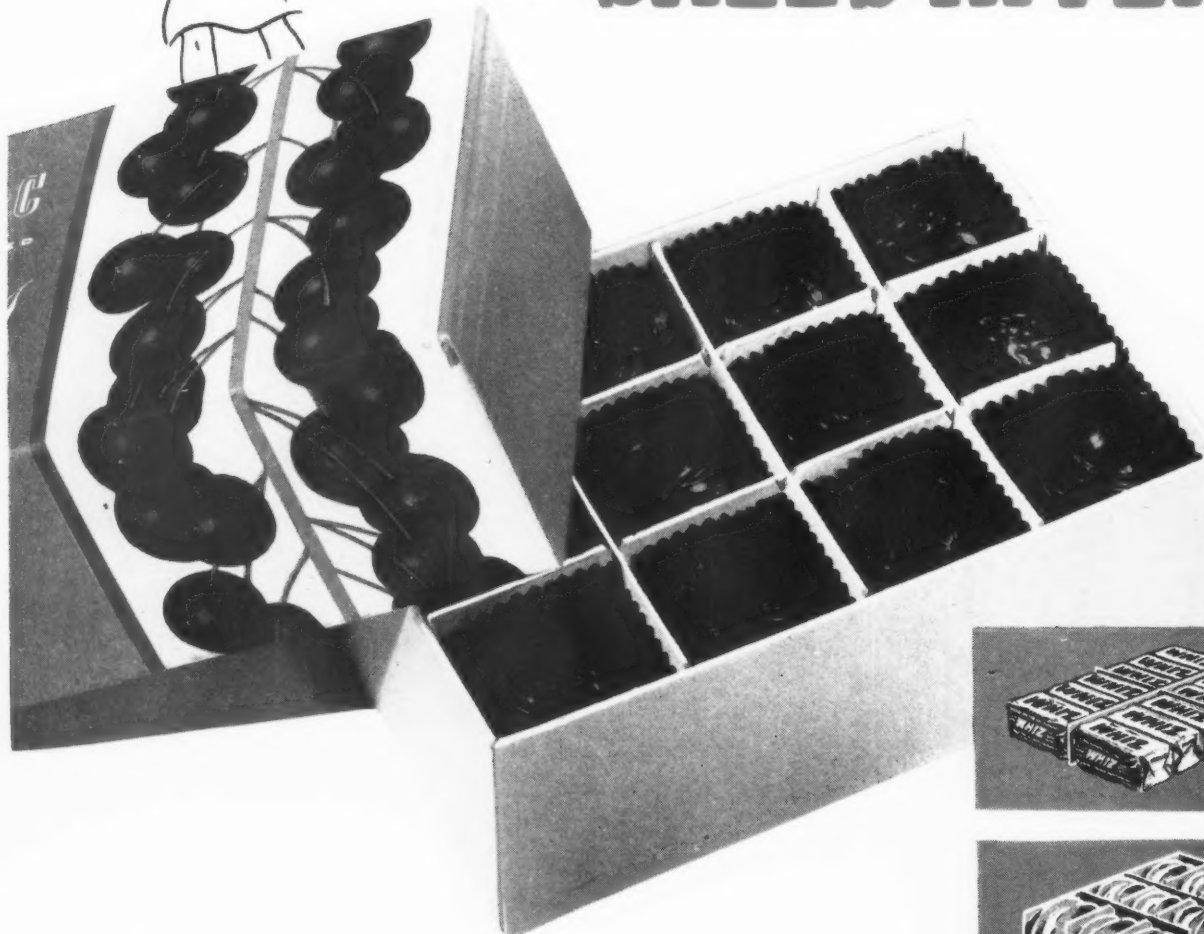
POSITION _____



PACKAGING BY
MEANS

Traver

PROTECTION PLUS SALES APPEAL



Brach's luscious chocolate covered cherries reach the consumer in perfect condition in Traver's Loxtite partitions. Each piece of candy rides safely in style in its individual compartment. Why not make sure that your product reaches market in the same perfect condition by investigating the possibilities of Traver's Loxtite partitions for your particular package. Loxtite partitions are ideal for all types of external and internal packaging of fragile articles.

Sales Offices in Chicago, New York, Philadelphia, Pittsburgh, Cleveland, Kansas City, St. Louis, Dallas, Detroit, Oakland

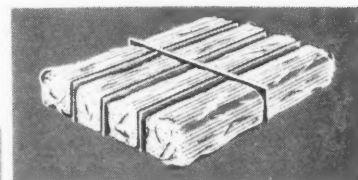
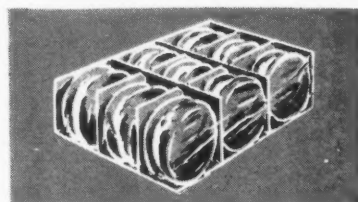
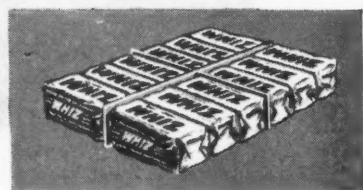
You are cordially invited to visit our exhibit at the AMA (National Packaging Exposition, May 10th to 13th, 1949, Convention Hall, Atlantic City, New Jersey, our booth Number is 321-A.



Write or wire for information.

TRAVER CORPORATION, 366 W. ONTARIO ST., CHICAGO 10, ILLINOIS

CONVERTERS AND PRINTERS OF CELLOPHANE, PLASTICS, ACETATES, FOIL AND GLASSINE



Sefton

THE
Exposition
ATLANTIC CITY
10th to 13th



Sefton's STRING-
OPENING CAN HAS
MANY FEATURES!

Today, more than ever, the package for your product must give you merchandizing appeal, protection and convenience. Sefton considers all these factors when planning your package. Their versatile string-opening can is factory-sealed, tamper-proof, is easy to open and close again. Write or call Sefton today!

Write or call Sefton today!

11



Opticlear Vials are as serviceable as they are attractive!

*Again.... OPTICLEAR VIALS chosen
to keep penicillin product DRY*

• Adopted this time by Abbott Laboratories . . . to inhibit the action of moisture upon their new penicillin powder inhalant.

Moisture penetration is virtually impossible through the amazing seal of an Opticlear Vial . . . even after its resilient stopper has been

removed and replaced many times.

The lustrous Opticlear Vial is the ideal package for dry products which must be kept dry.

SPECIFY KIMBLE FOR ASSURANCE OF CONTAINER QUALITY

KIMBLE GLASS TOLEDO 1, OHIO

Division of Owens-Illinois Glass Company





Above, Traypak production in a Reynolds plant. Left, Reynolds Traypak as used by Hunter Packing Company, East St. Louis, Ill., for chili con carne shipped and handled under refrigeration. May be heated by the consumer right in the Traypak.

REYNOLDS TRAYPAK

for fresh, pre-cooked, refrigerated or frozen foods, bakery goods, candies, nuts, waxes, etc.

Low-cost expendable container in which food can be processed directly—oven-proof, for baking. In many operations now using permanent containers, Reynolds Traypak offers better product presentation without the expense of washing and rehandling containers. In other cases it makes aluminum's superior protection and display available to both

manual and semi-automatic packing operations.

Pre-formed of pure aluminum. Semi-rigid. Shipped nested, lids separate. Lid may be color printed for brilliant, self-selling display. Strong yet easy-to-open crimp closure. Cannot absorb moisture or juices. Protects against light and odor. No liner or wrap necessary, but may be transparent wrapped without lid to show product. Pint and quart sizes available now. Reynolds Metals Company, Richmond 19, Va.



REYNOLDS ALUMINUM



So many people know you

So long as one is unknown it is possible to come and go, hither and yon, without attracting even a flutter of attention or disturbing the self-centered thinking of the multitude — all fiercely intent on their own little worlds.

But once one has done something outstanding . . . has stepped out from the herd . . . has taken on a mantle of Leadership, all that is changed.

So many people know you.

The things one does become known to so many . . . the things one makes, are bought without question or thought of being other than conforming to clear cut standards.

So many people know the name Tupper . . . housewives in big cities and little country towns . . . the Colonel's Lady and Judy O'Grady . . . the Colonel himself and G I Joe. All of them know the name of Tupper for its works.

The name of Tupper is probably known to more people as designers and molders of those award-winning, charming table and kitchen wares — fashioned from that intriguing "material of the future", Poly-T, the Tupper trade-marked name for application of Polyethylene, than is any other.

So when a package, a container, commercial or industrial application is a Tupper product, selected from stock items or custom molded to special requirements, we may both be assured we are in good company — so many people know us.

For that "man of the house" who loves to play host . . . TUPPERWARE conventional pieces and TUPPERWARE special items warm his heart.



TUPPER CORPORATION

TUPPER!

FACTORIES: Farnumsville, Mass., and Cuero, Texas

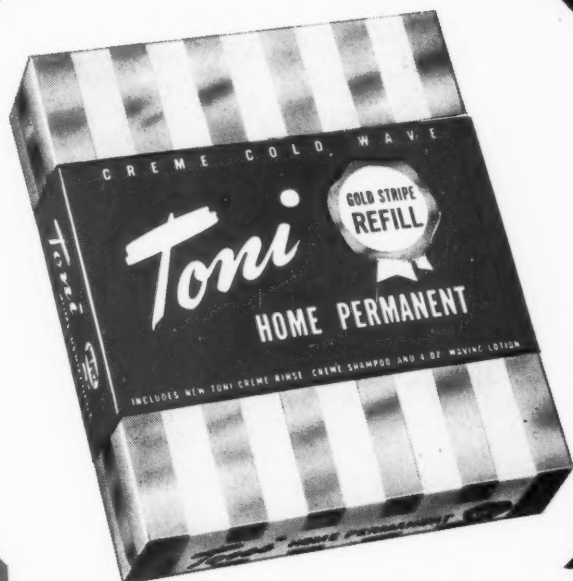
New York Show Rooms 225 Fifth Ave.

ADDRESS ALL COMMUNICATIONS TO: Development Department A, CUERO, TEXAS

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Best Seller

goes into **FOIL** boxes



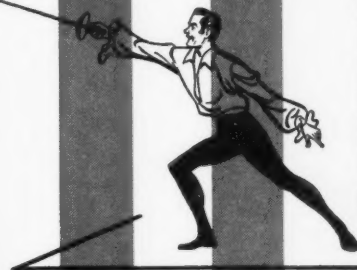
The *Toni* Home Permanent Kit is one of the most spectacular successes in recent merchandising history. Toni is now packaged in Foil Cartons — produced by United.

Your product, too, may “hit” the best-seller list if you package it in Foil Cartons. Foil attracts more eyes, influences more buyers, sells more products—faster and more economically. Let United prove to you how Foil Cartons can step up sales and increase profits. Send us your present folding box or display carton for suggestions. You assume no obligation.



UNITED BOARD AND CARTON
Corporation

156 Solar Street, Syracuse 1, N. Y.



**FOIL CARTONS SELL
MORE GOODS—FASTER**

Head Mills: Lockport, N. Y.; Thomson, N. Y.; Urbana, O.

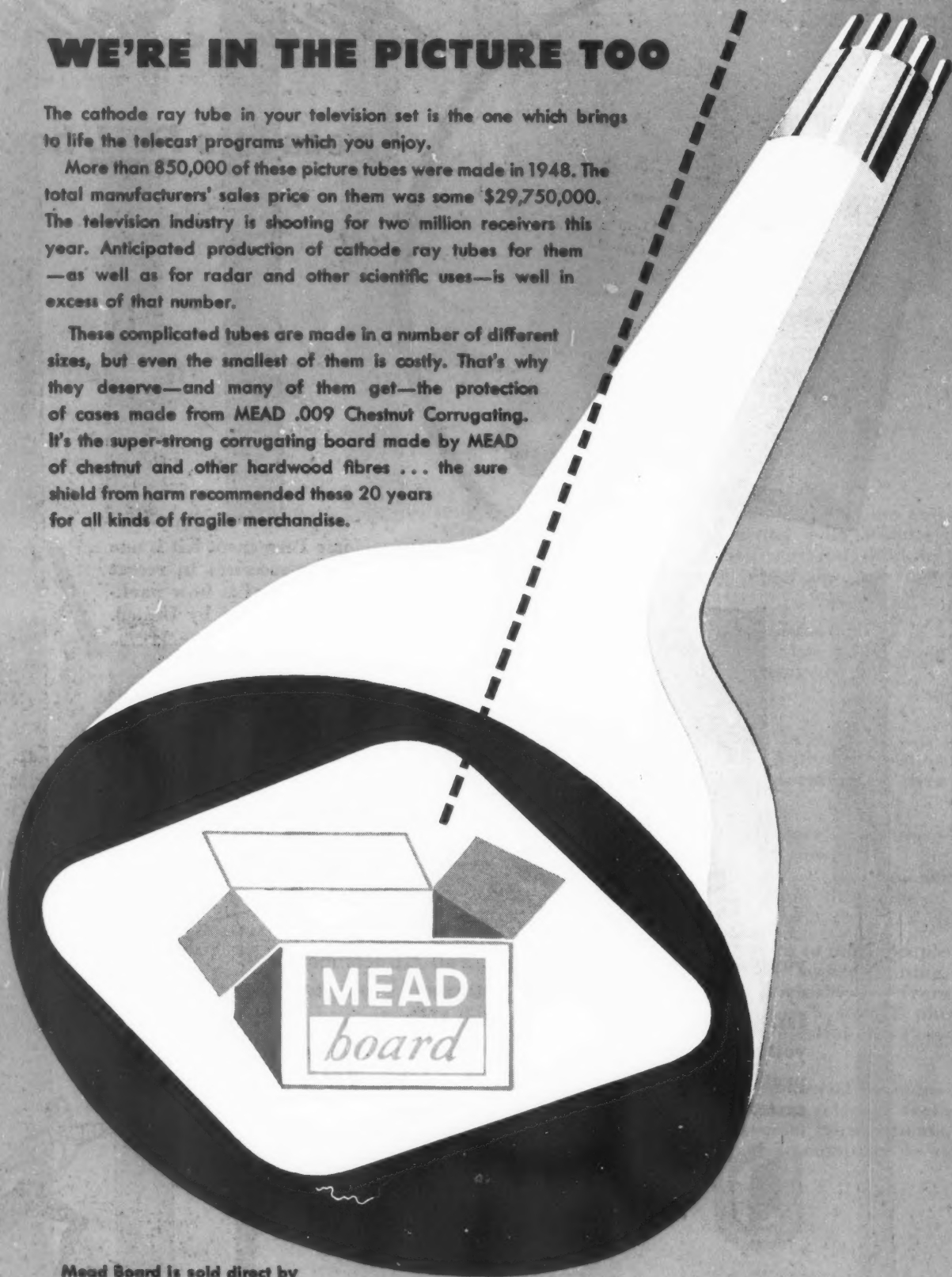
Carton Plants: Victory Mills, N. Y.; Syracuse, N. Y.; Brooklyn, N. Y.; Cohoes, N. Y.; Springfield, O.

WE'RE IN THE PICTURE TOO

The cathode ray tube in your television set is the one which brings to life the telecast programs which you enjoy.

More than 850,000 of these picture tubes were made in 1948. The total manufacturers' sales price on them was some \$29,750,000. The television industry is shooting for two million receivers this year. Anticipated production of cathode ray tubes for them—as well as for radar and other scientific uses—is well in excess of that number.

These complicated tubes are made in a number of different sizes, but even the smallest of them is costly. That's why they deserve—and many of them get—the protection of cases made from MEAD .009 Chestnut Corrugating. It's the super-strong corrugating board made by MEAD of chestnut and other hardwood fibres... the sure shield from harm recommended these 20 years for all kinds of fragile merchandise.



Mead Board is sold direct by

MEAD BOARD SALES, INC.

3351 MADISON ROAD, CINCINNATI 9, OHIO

Beautiful

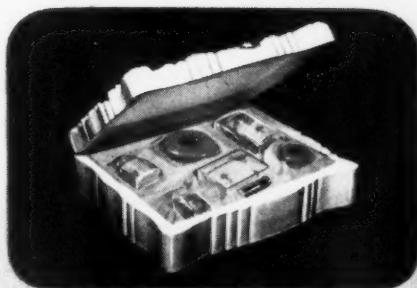
RE·USE GIFT CONTAINERS

Guildcraft

HALLMARK OF FINE PACKAGING



A Rich, Leather-like "Chest" of substantial size and construction — yet amazingly low cost. Another example of GUILD-CRAFT Re-Use Gift Packaging understanding and fabricating know-how. No matter what your product, you'll find GUILDCRAFT custom built containers well worth while investigating. Write or wire now!



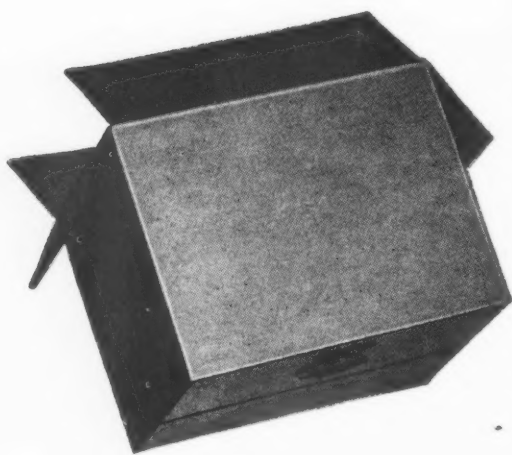
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FREDERICK A. KRAUSE *and* ASSOCIATES

8 SOUTH DEARBORN STREET • CHICAGO 3, ILLINOIS

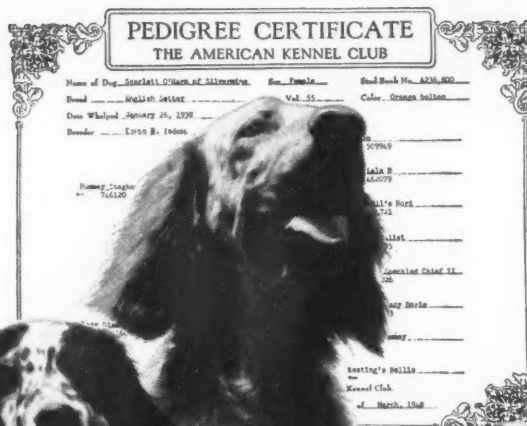
In boxes, too!



PROOF OF *Quality*
PROOF OF *Service*
PROOF OF *Fair Price*

And more than that: For more than 75 years Union has been the leader in paper packaging, producing specification bags for hundreds of industries.

The same skill in production, the same vast forest resources and mass production economies



THE ENGLISH SETTER, stately in appearance, has been favored as an excellent bird-dog by sportsmen for almost four centuries. He is very gentle and lovable in disposition. He needs plenty of space and exercise in order to be happy, so never confine him to close quarters!

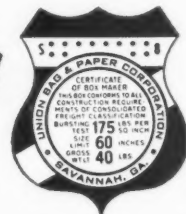
Today Union's board is going into corrugated containers bearing the pedigree mark of the famous Union shield.

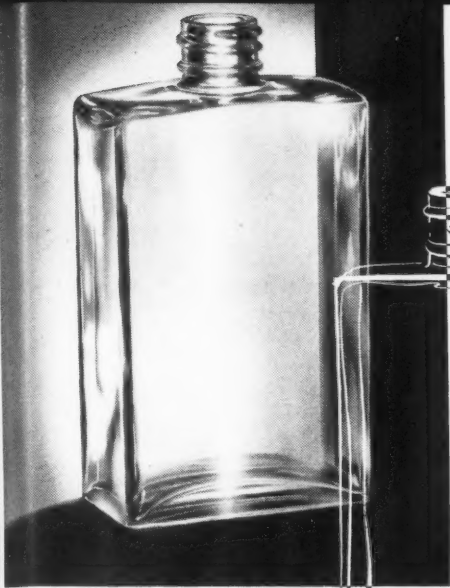
This emblem identifies an organization which, for three quarters of a century, has been fully conscious of its responsibilities to customers who must depend on the reliability of their container source for the continued operation of their own plants.

UNION *Corrugated Containers*
UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N. Y.

Corrugated Container Plants: SAVANNAH, GA. • CHICAGO, ILL. • TRENTON, N. J.

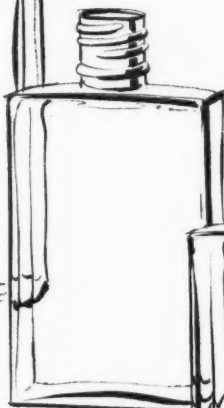




TALL 4986—3 oz.



4984—2 oz.



4983—1 oz.



4982—1/2 oz.



4880—1/4 oz.



4981—1/8 oz.

The new H-A tall and short rectangles

are show pieces and sales pieces for cosmetic

manufacturers. These glistening bottles sell on dealers'

shelves and home dressing tables. Efficient on the

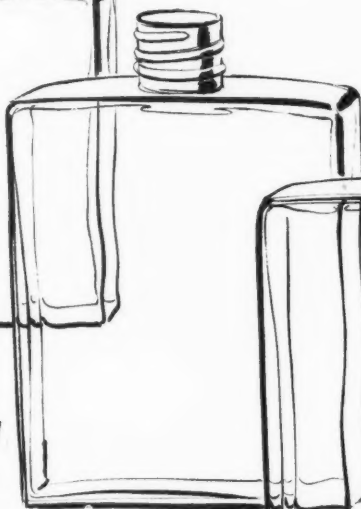
production line, too.



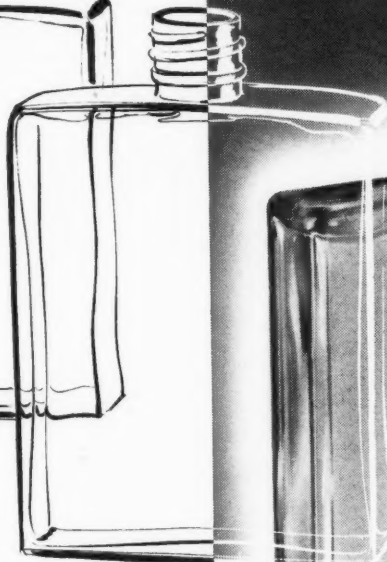
4210—1 1/2 oz.



4242—2 oz.



4129—4 oz.



4243—6 oz.

SHORT 4244—8 oz.



Available in practical

sizes. Send for

samples today.

HAZEL-ATLAS GLASS COMPANY

Wheeling, West Virginia

PACKAGING MACHINES
BY STANDARD-KNAPP

*Put Everything in
its Proper Place*

AMMUNITION APPLE SAUCE
BABY FOODS BABY OILS
BAKED BEANS BEER BEETS
BLEACH WATER BLUEBERRIES
BROWN BREAD CANDY CHEESE
CURRIES CHICKEN CIGARS
CIGARETTES CODFISH CORN
EGG AND NUT BREAD
FOOD DYNAMITE FISH
FRANKFORTS FRUIT SALAD
FRUIT JUICE GIN GRAPEFRUIT JUICE
HAM KETCHUP HAM HAMBURG KETCHUP
LAMP FLUID LAMP BULBS LIGHTER FLUID
MUSTARD MAYONNAISE MILK MUSTARD
OATMEAL MOLYBDENUM OATMEAL OILS
JUICE OLIVES ORANGE JUICE PAINT
CUPS PAPER CUPS PAPER NAPKINS
• PEACHES • PEARS PINEAPPLES
• PHARMACEUTICALS • PICKLES
POTATOES POWDER PUMPKIN
RASPBERRIES RUBBER PRODUCTS
SALMON SARDINE SAUSAGE
SAUERKRAUT SHORTENING
SHOE POLISH SOFT DRINKS
SOAPS SOUPS SPAGHETTI
SANITARY NAPKINS SYRUPS
TOBACCO TOILET PAPER
TOOTH PASTE TOOTH POWDER
WALNUTS WHISKEY WINE
DOG FOOD DYNAMITE
FRANKFORTS FRUIT
SALAD IN GRAPEFRUIT JUICE
HAMBURG KETCHUP
LAMP BULBS LIGHTER FLUID
MAYONNAISE MILK MUSTARD
OATMEAL OIL
ORANGE JUICE PAINT
PAPER NAPKINS
PINEAPPLES
PICKLES
PUMPKIN
RUBBER PRODUCTS
SAUSAGE
SHORTENING

Cans, bottles, cartons . . . round, square or flat shapes . . . standard or special sizes . . . are quickly, efficiently and economically cased by Standard-Knapp packers. Famous, established firms and forward-moving newcomers alike know Standard-Knapp packers do a cost-saving job of "putting everything in its proper place."



STANDARD-KNAPP

DIVISION OF HARTFORD-EMPIRE COMPANY
PORTLAND, CONNECTICUT

UNLOADERS • UNSCRABLERS • WASHERS • LABELERS • PACKERS • GLUERS • SEALERS



help you get greater value from your advertising campaign



CORRUGATED AND
SOLID FIBRE BOXES

FOLDING CARTONS



KRAFT GROCERY
BAGS AND SACKS

KRAFT PAPER
AND SPECIALTIES



You invest thousands of dollars in effective, colorful advertisements to build consumer demand and recognition for your product.

To receive the greatest value from your advertising, your product should be delivered to the user in good condition.

And for sales action at the point of purchase, your package must attract favorable attention.

For better protection and greater sales, depend on Gaylord precision built boxes. Artistically designed and colorfully printed, they are a powerful aid to sound merchandising.

Call in a Gaylord sales representative — you'll find his experience a real help.

GAYLORD CONTAINER CORPORATION General Offices: ST. LOUIS

New York • Chicago • San Francisco • Atlanta • New Orleans • Jersey City • Seattle
Detroit • Indianapolis • Houston • Los Angeles • Oakland • Minneapolis
Jacksonville • Columbus • Fort Worth • Tampa • Cincinnati • Dallas
Des Moines • Oklahoma City • Greenville • Portland • St. Louis • San Antonio
Memphis • Kansas City • Bogalusa • Milwaukee • Chattanooga • Weslaco
New Haven • Appleton • Hickory • Greensboro • Sumter • Jackson • Miami

AVENIZED • MYCOBAN &
DRY WAXED PARCHMENT

•
BUTTER WRAPPERS

•
OLEOMARGARINE
WRAPPERS

•
MILK & ICE CREAM
CAN TOPS

•
MEAT WRAPPERS

•
LARD CARTON LINERS

•
VEGETABLE SHORTENING
CARTON LINERS

•
BUTTER TUB LINERS
& CIRCLES

•
BUTTER BOX LINERS

•
SLICED BACON WRAPPERS

•
FISH FILLET WRAPPERS
& INSERTS

•
CELERY WRAPPERS

•
LINERS FOR MEAT TINS

•
POULTRY WRAPPERS

•
CHEESE WRAPPERS

•
TAMALE WRAPPERS

•
MANY OTHERS



West Carrollton GENUINE VEGETABLE Parchment

IS VERSATILE, TOO!

You can be assured that all your product's original flavor reaches the consumer when you wrap it in West Carrollton Genuine Vegetable Parchment. Leading packers of moist foods use it—enthusiastically. It is TASTELESS, ODORLESS, GREASE RESISTANT and INSOLUBLE. Why not have us design your label and print it with one or more attractive colors?

WEST CARROLLTON PARCHMENT COMPANY
WEST CARROLLTON, OHIO

packaged for
eye-appeal
with
Koppers Polystyrene



ONE poker chip has just about as much sales appeal as another. The problem facing the poker chip manufacturer is to design a container that will catch the customer's eye and offer greater value for the money.

The Skyline Industries of Titusville, Pa. solved this problem with a colorful container of Koppers Polystyrene with brilliant poker chips molded from the same material.

The inside case is of rich transparent red. The cover is crystal which shows off the red, white and blue chips to advantage. Even the little heart-shaped handle is made of Koppers Polystyrene.

Sales of this poker chip case show it has lots of eye-appeal—and the low cost of Koppers Polystyrene gives the case a definite price advantage.

Bring your packaging problem to Koppers

Whether you make sporting goods, food products, cosmetics, jewelry—Koppers Polystyrene offers a combination of qualities that are well worth investigating. It is tasteless, odorless and extremely low in water absorption . . . will hold food products, alkalis and most acids . . . can be supplied crystal clear or in any desired color.

Possibly Koppers can help you with your packaging problems. Our technical staff is ready at all times to help you improve your designs and to choose the right packaging materials for your applications.

KOPPERS COMPANY, INC.

Chemical Division • Pittsburgh 19, Pa.

Regional offices in New York, Chicago and San Francisco



SEND FOR NEW BOOKLET

Koppers Company, Inc.
Chemical Division, Dept. MPG 3
Pittsburgh 19, Pa.
Please send me your new booklet on Koppers Plastics.

Name.....
Company.....
Address.....
City.....

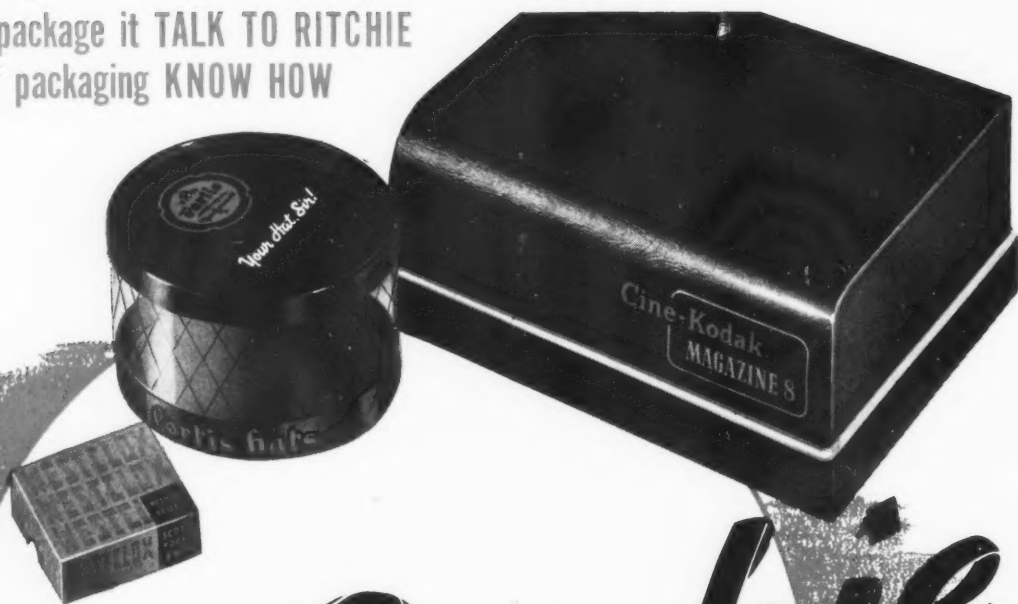
Koppers *Perfected* **Plastics**

*POLYSTYRENE

*ETHYL CELLULOSE

*CELLULOSE ACETATE

➔ Before you package it TALK TO RITCHIE
83 years of packaging KNOW HOW



**LEADERS IN
AMERICAN INDUSTRY
LOOK TO**

Ritchie for Packages

**Thousands or millions made
and shipped ON SCHEDULE**

Check with Ritchie the next time you consider a source for set-up paper boxes, transparent packages or fibre cans. Ritchie supplies them for many of America's best known products. Talk with Ritchie if you have a tough package problem. Ritchie men know packages—can help you at every step in design, construction and production planning. You benefit from Ritchie's 83 years of packaging *know how*.



Design:

Many come to Ritchie for a better *designed* package. They seek a standout

eye catcher to anchor a national ad campaign, win the enthusiasm of dealer, jobber and salesman. Ritchie supplies that kind of package—by the million.



Construction:

Ritchie-made packages are *practical*—planned for production at *low unit cost*. Constructed to protect and/or conveniently dispense your product. Easy to fill or pack—to handle, stack and display. In short, a **BETTER PACKAGE**.



Production:

With specially designed, high speed labor-saving equipment—Ritchie functions as an arm of your own production line—delivers your package requirements **ON SCHEDULE**—even during your seasonal peaks. (*Ritchie's annual package capacity over a billion units.*)

• • •

Talk to a Ritchie Man—always at your service. Or send us your present package for suggestions. No obligation. Booklet, "5 Essentials of a Selling Package" mailed on request.

SET-UP PAPER BOXES

TRANSPARENT PACKAGES

FIBRE CANS

W.C. *Ritchie*
and COMPANY

8841 BALTIMORE AVE.
CHICAGO 17

Packaging for the Leaders
since 1866

NEW YORK
CLEVELAND

• DETROIT
• CHARLOTTE

• LOS ANGELES
• JACKSONVILLE

• ST. LOUIS
• PROVIDENCE

• DENVER
• DALLAS

FUTURE OF INDUSTRY
depends on New Inventions.
Crown Can Scientists are looking
to Crown's Future—and yours!

A New Industry

Started by Crown's Amazing
New Propulsion Cans!



New products in wondrous array have come into being through Crown's newest Can Invention — the one-piece cone-topped Crown Propulsion Can. Under gas pressure comes out Whipped Cream, Insecticides, Sprays, Kitchen Deodorants, and only Inventive genius knows "what next?"

Remember the no-side-seam, no-top-seam molded cone top Crown Can is different and ideal for pressure use. Perhaps this Can is

a "natural" for your product—perhaps you have a new idea. Ask to have a Crown Sales Representative call and discuss it.

"Just a Touch
of the Thumb"

Simply press top of
Crown Can and
spray contents di-
rect from the Can.
Think what possi-
bilities this offers.

CROWN CAN

One of America's Largest Can Manufacturers

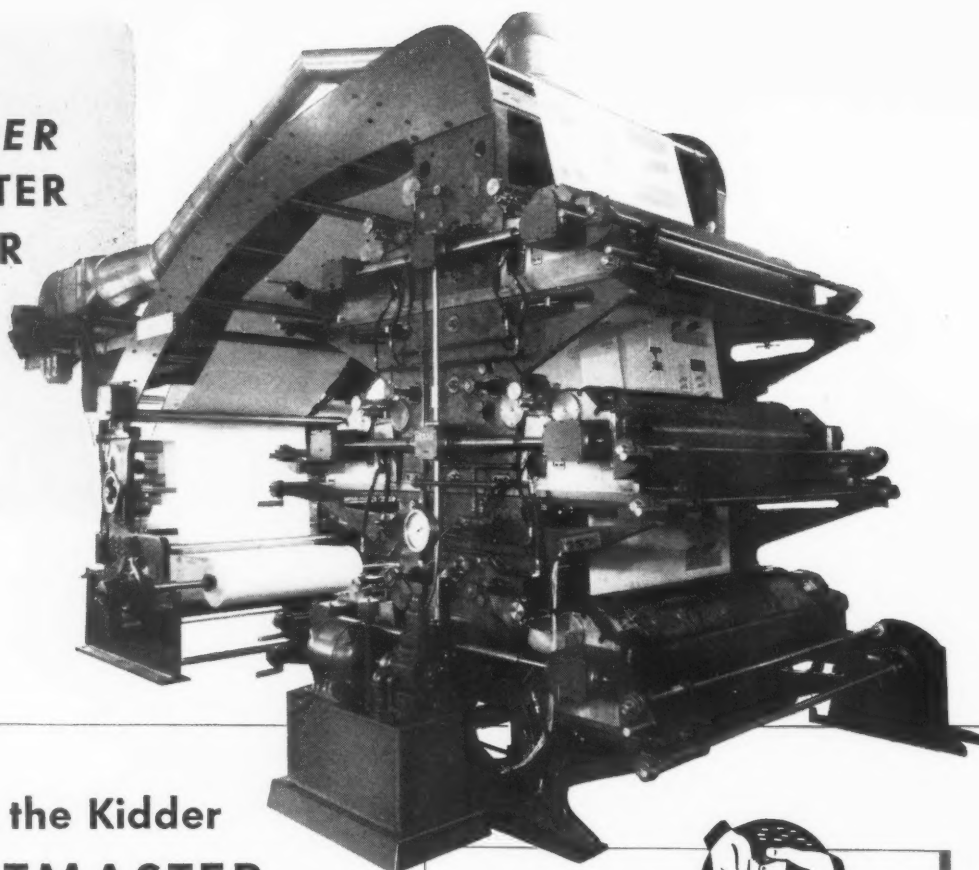
PLANTS AT PHILADELPHIA, BALTIMORE, CHICAGO, ST. LOUIS, HOUSTON, ORLANDO • Division of the Crown Cork & Seal Company

MARCH 1949

25

**"MEET THE
NEW KIDDER
PRINTMASTER
ANILINER**

*... the most
advanced press
of its type
ever developed"*



**Only the Kidder
PRINTMASTER**

*offers you all these advantages
in Aniline Printing:*

- Heavier and more precision built press throughout.
- Metered ink fountains which insure a constant ink flow at all speeds and a unique drive which keeps fountain rollers running when the press stops. Hydraulic-cylinder release system which has been greatly simplified.
- An improved drying system which partially dries each color as printed and then completely dries, seals, re-moistens and cools the printed web after all colors have been applied.
- Ink fountains driven independently of plate cylinders by a way shaft and gear box system using only hardened gears, running in oil.
- Bearings are anti-friction type throughout, making for exceptionally easy running, minimum power consumption and long life of moving parts.

CONTROL OVER
THE PAPER
PROPER
DISTRIBUTION OF
INK
ACCURACY OF THE
IMPRESSION



KIDDER

Manufacturer of "3
Point" Presses—so-
called because they
fulfill the three ma-
jor requirements
for perfect printing.

THE KIDDER PRINTMASTER ANI-
LINER IS AVAILABLE IN 52" and 65"
WIDTHS AND IN FOUR OR SIX
COLOR FRAMES.

For further information write:

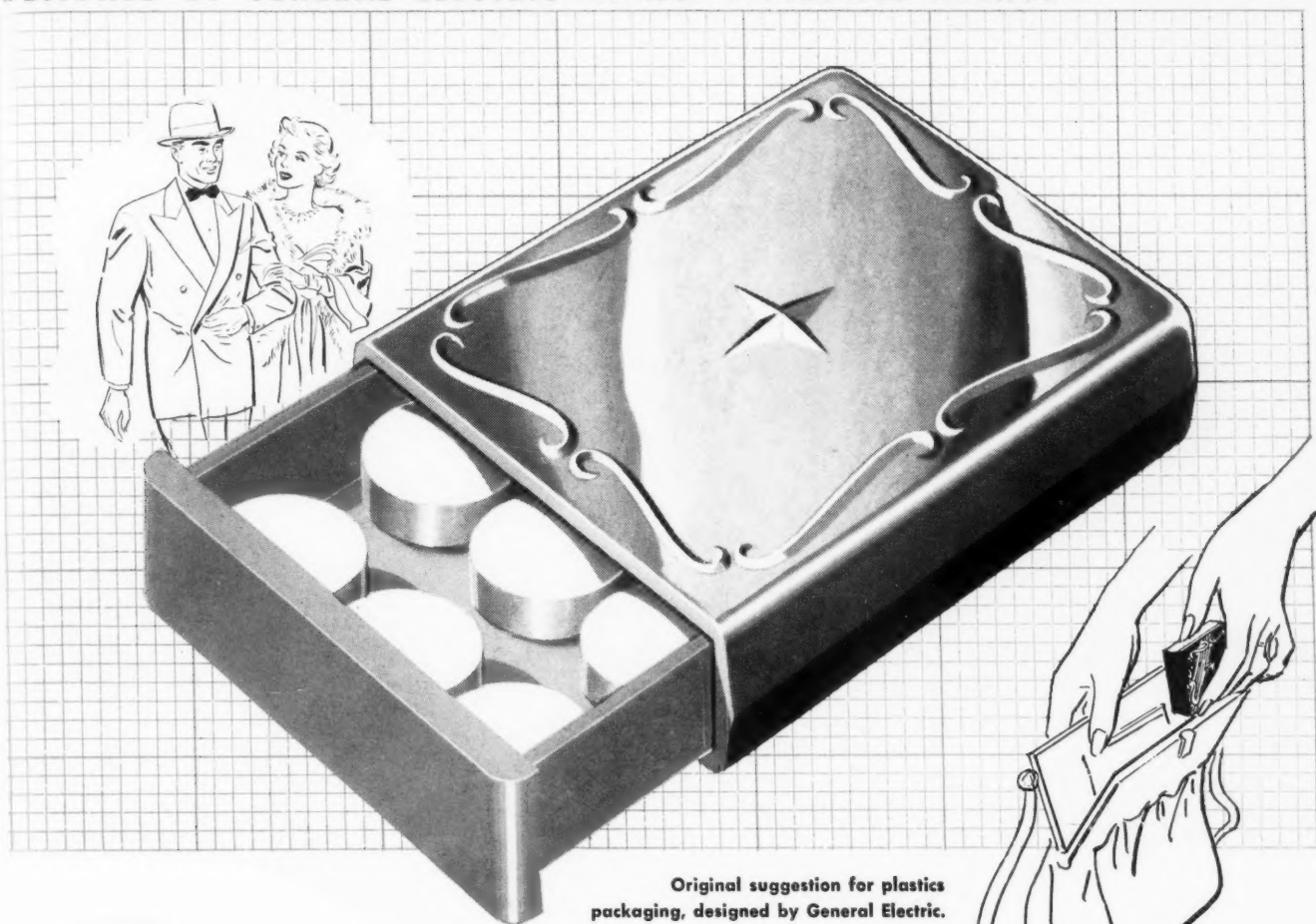
KIDDER PRESS COMPANY, INC.

DOVER, NEW HAMPSHIRE

A. E. MARCONETTI, INC.
11 W. 42nd St., New York 18, N. Y.

MACHINERY SERVICE COMPANY
P. O. Box 33, Los Angeles 11, California

DESIGNED BY GENERAL ELECTRIC AT NO. 1 PLASTICS AVENUE



Original suggestion for plastics packaging, designed by General Electric.

Put your pills in her purse

WITH A G-E PLASTICS PACKAGE

Here's a feminine trinket that's useful as well as decorative. This handsome and handy pillbox was designed in colorful plastics by General Electric to give away with each hundred-tablet bottle. It's a sure-fire sales maker for vitamins or aspirin.

This pillbox is just another example of how General Electric's original plastics packaging can glamorize your product, heighten its eye appeal, increase sales. General Electric has no stock of these boxes. However, this design may be yours. Or whatever your requirements may be, G. E. will take on the job.

For General Electric, one of the world's largest

manufacturers of finished plastics products, offers a complete plastics packaging service... from making the original design to the production of the finished package. Also, G. E. molds all types of plastics materials; thus you get the one that best suits your needs.

No matter what your products are, give them the settings they deserve—plan to use plastics in your merchandising. General Electric designers and engineers are always ready to work on your packaging problems. Write to Section 2-3, Plastics Division, Chemical Department, General Electric Company, 1 Plastics Avenue, Pittsfield, Massachusetts.

YOU CAN PUT YOUR CONFIDENCE IN

GENERAL  ELECTRIC
CD49-ES
EVERYTHING IN PLASTICS

... Among Specialty
Bag Companies



12 out of 12 buy Riegel

All twelve of the largest
specialty bag companies
buy Riegel Papers
regularly

Among the makers of specialty bags, and in many other fields, you will find most of the sales leaders are regular Riegel customers. They buy from us because they know we can make packaging and industrial papers that combine technical excellence with economy and production efficiency. Their confidence in Riegel is an important reason why your company—whether large or small—should see if we can also help you. Write to Riegel Paper Corporation, 342 Madison Avenue, New York 17, N. Y.

Riegel Papers We produce over 600 different packaging, printing, converting and industrial papers. If we don't have what you want, we can probably make it.



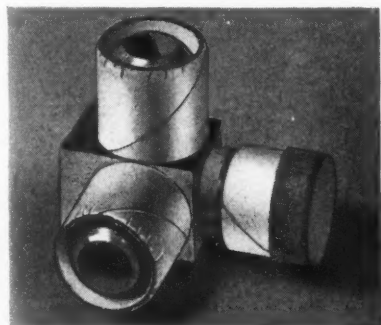
New Ways to **PROTECT PARTS**

IN PRODUCTION, SHIPMENT
AND STORAGE

PLUGS . . . SLEEVES and CAPS

ATTRACTIVE PRICES

based on immense
production capacity
— quick deliveries.



Visit our
Booth No. 107
at the 18th AMA
Packaging Exposition

PROTECT against damage to threads: **PLUGS** for internal threads. **SLEEVES AND CAPS** for external threads.

PROTECT against dust and dirt . . . against damage in dipping or spraying.

Made in sizes and shapes to meet every need and purpose.

PLUGS and **SLEEVES** obtainable in diameters $\frac{1}{8}$ " up.

CAPS obtainable in diameters from $\frac{1}{4}$ " up.

SPECIAL SIZES or **SHAPES** made with no die charge where quantities warrant.

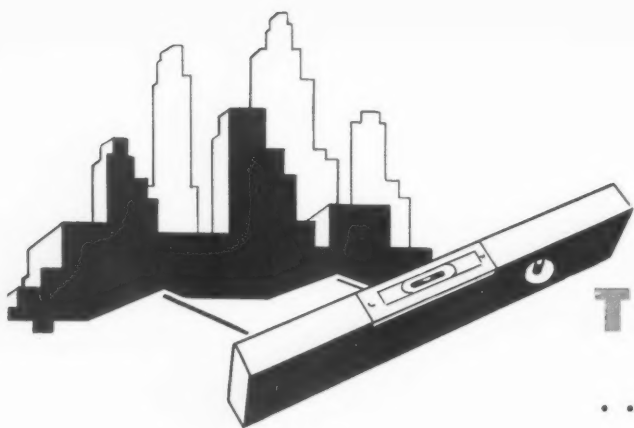
For experienced counsel, consult our engineering department

The CLEVELAND CONTAINER Co.
6201 BARBERTON AVE. CLEVELAND 2, OHIO

- All-Fibre Cans • Combination Metal and Paper Cans
- Spirally Wound Tubes and Cores for all Purposes
- Plastic and Combination Paper and Plastic Items

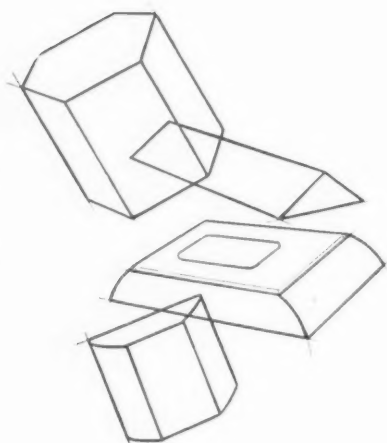
PRODUCTION PLANTS also at Plymouth, Wisc.; Ogdenburg, N.Y.; Chicago, Ill.; Detroit, Mich.; Jamesburg, N.J.
PLASTICS DIVISION at Plymouth, Wisc.; ABRASIVE DIVISION at Cleveland, Ohio
SALES OFFICES: Room 5632, Grand Central Terminal Building, New York 17, N.Y.; also 647 Main St., Hartford, Conn.
CANADIAN PLANT: The Cleveland Container Canada, Ltd., Prescott, Ontario. Sales Offices in Toronto and Montreal





TO BUILD A CITY
...YOU BALANCE THE BUBBLE

TO RUN A COUNTRY
YOU BALANCE THE BUDGET



TO SELL MERCHANDISE
YOU PHONE BROOKS & PORTER
FOR ATTRACTIVE PACKAGING
AND COUNTER DISPLAYS



BROOKS & PORTER Inc.
304 HUDSON STREET NEW YORK 13

Designers and manufacturers of fine packaging and displays

Tri-State

RIGID PLASTIC BOXES

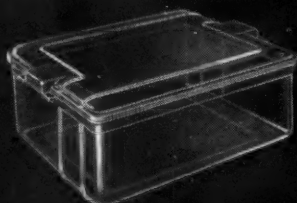
do Double Duty

Filled Tri-State Rigid Plastic Boxes protect, display, merchandise their contents. When emptied, they are extremely useful for a number of household purposes, including service in the refrigerator.

Unfilled Tri-State Rigid Plastic Boxes provide quick-moving, over-the-counter merchandise.



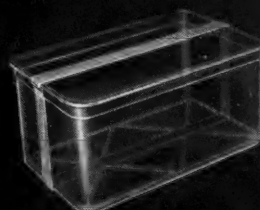
Diam. 4-3/8" Height 3/4"



4-1/2" x 13" x 9"



Diam. 3-3/4" Height 1-1/8"



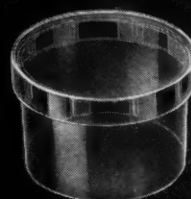
4" x 8" x 3-1/4"

"Tailor made" for the job packaging must do today — *sell* — these non-toxic, odorless, shatterproof, dimensionally stable containers assure complete protection for contents from all harmful agents normally encountered. Crystal-clear, translucent or opaque, their sparkling beauty makes exceptional appeal at the point of sale.

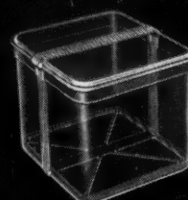
Packaging operations are simplified and costs reduced in practically all instances, because sealing tape, folding, labels, repeated handling, etc. are eliminated.

Tri-State Rigid Plastic Boxes can be employed to good advantage by virtually all manufacturers desiring highly protective, distinctive, attention-getting packaging. Especially recommended for food, dairy, cosmetic, confectionary, bakery, tobacco, jewelry, and hardware industries.

NOTICE: We are the sole inventors and originators. Patents have been applied for on all these designs and infringers *will be* prosecuted.

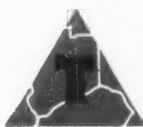


Diam. 4" Height 2-1/2"



4" x 4" x 3-1/4"

WE MOLD TO YOUR SPECIFICATIONS, OR, IN A WIDE RANGE OF AVAILABLE STOCK SIZES AND SHAPES



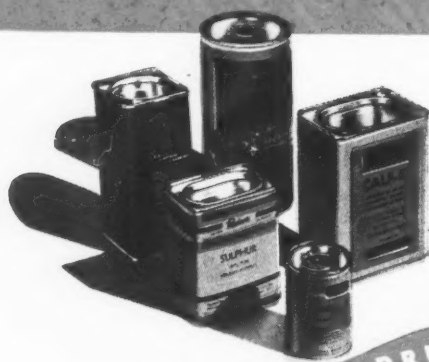
The best Rigid Plastic Boxes are Injection Molded by
TRI-STATE PLASTIC MOLDING COMPANY

HENDERSON, KENTUCKY

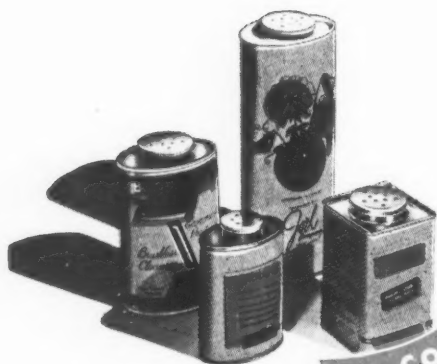
New York Offices: 12 E. 41st Street — Murray Hill 3-6572

DESIGNED for BETTER

PACKAGING SALES



DRUGS



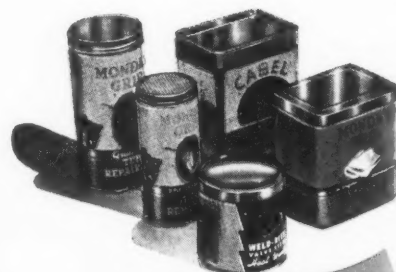
COSMETICS



FOODS



INSECTICIDES



AUTOMOTIVE SUPPLIES

Because they're product-engineered by R. C. Can design specialists

Containers aren't "jack-of-all-trades". By careful research and study into both the product characteristics and packaging requirements, R. C. Can engineers are able to design containers that are "tailored" to each specific product. Functional features—such as filling, dispensing and stacking are combined with eye and buy-appeal, to assure more profitable and efficient packaging—for every industry served.

Complete, Economical Packaging Service

From planning... testing... and manufacturing your package... to designing your closure and label... to printing and applying the label... the containers are delivered ready for filling... packaging service from *one* dependable source.

R. C. CAN COMPANY

BRANCH FACTORIES: ARLINGTON, TEX.; RITTMAN, O.; KANSAS CITY, MO.
SALES OFFICES:

C. E. DOBSON, 819 Carondelet Bldg., New Orleans 12, La.
S. W. SCOTT, 608 McCall Bldg., Memphis 3, Tenn.
CAN SUPPLY CO., 1709 W. 8th St., Los Angeles 14, Calif.
C. J. TAUGHER, 1628 W. Wisconsin, Milwaukee 3, Wis.

R. J. WATERS, 516 Fifth Ave., New York, N. Y.
EDWIN F. DELINE CO., 224 W. Alameda, Denver 9, Colo.
W. L. BENNETT, 126 S. Third St., Minneapolis 1, Minn.

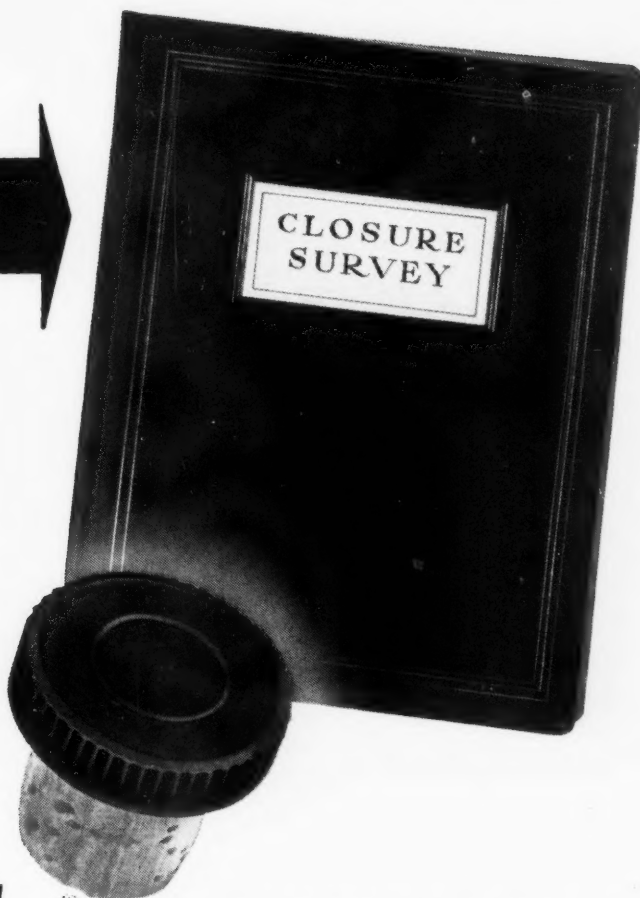
L. C. MORRIS CO., 1125 Spring St., N. W., Atlanta, Ga.
H. K. GRINSTEAD, 633 S. 5th St., Louisville, Ky.
ALLIED PAPER SPECIALTY SALES
P. O. Box 1082, Pittsburgh 30, Penna.



This report proves

barmen prefer

this closure



**Wood-top cork closure voted 2 to 1
choice over any other type . . . outranks
all three rivals combined.**

MORE than 200 barmen in four major American cities recently answered this question: "In whiskey bottles as they come from the distillery, which type of closure do you prefer and why?" 59% unhesitatingly voted for the embossed-top cork—the type closure which Dodge has manufactured and sold to leading distilleries for many years.

The embossed-top cork closure was better than a 2 to 1 favorite over a molded bar cap. It was nearly a 3 to 1 choice over a metal screw cap. And it outranked a deep skirted metal cap 9 to 1.

Conducted by Fact Finders, Inc., for the Cork Institute of America, this investigation was made among barmen in New York, Chicago, Boston and San Francisco.

Here is the vote:

	No.	%
A. Embossed-top cork	122	59.2
B. Deep skirted metal cap	8	3.9
C. Molded bar cap	54	26.2
D. Metal screw cap	45	21.8
E. No preference	7	3.4

NOTE: TOTAL IS MORE THAN 100% AS SOME BARMEN VOTED FOR MORE THAN ONE CLOSURE.

**Free Copy of Complete Report
Available to Packaging Men
in Distilleries and Wineries**

Read the results of this survey for yourself. It's fact-packed with ideas for you. The complete report will be sent without obligation. Write for it today. DODGE CORK COMPANY, INC., LANCASTER, PA.

Dodge

CORK CLOSURES

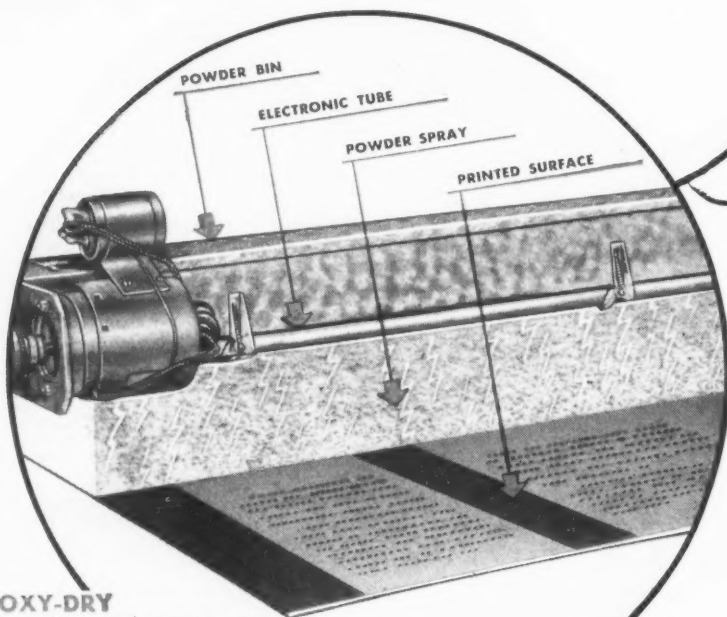
• DESIGNED TO GUARD THE INTEGRITY OF THE CONTENTS

DON'T STOP THE PRESSES BECAUSE OF OFFSET!

READY

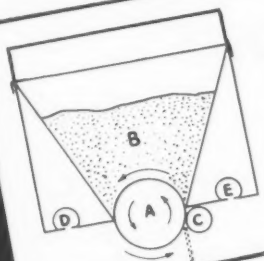
GO

STOP



OXY-DRY
Installs on Every Type of
Press . . . Works with
Any Kind of Printing
Process

HOW IT WORKS



As brass cylinder (A) re-
volves, anti-offset powder
(B) is distributed past

electronic tube (C) re-
ceiving 10,000 volt posi-
tive charge and bonding
instantly across freshly-
printed surface below.
The static electricity (neg-
ative electric charge) in
the paper is instantly dis-
sipated. Air vents (D & E)
are required only under
extremely drafty shop
conditions.

ASSURE FULL PRESS LOAD CAPACITY WITH **OXY-DRY** ELECTRIFIED POWDER METHOD OF OFFSET PREVENTION

Simply install the light, compact OXY-DRY Electrified Powder SPRAYER permanently in your press delivery and *your offset troubles are over!* This work-speeding, money-saving fact is being demonstrated daily on every type of press, the country over—sheet-fed, high-speed rotary and multi-colored . . . in letter-press, offset.

...

The OXY-DRY Electrified Powder process proves daily, in hundreds of exacting installations, that it *prevents offset and eliminates static* on all types of work . . . including over-print varnish, high-gloss and metallic inks on cartons, boxes, labels and cellulose printing.

...

Original cost, operating economy, effectiveness of *offset-prevention* and permanent health factors of OXY-DRY are so attractive as to amaze you. Get all the facts. Write today for full information applying to *your* type of press and work.

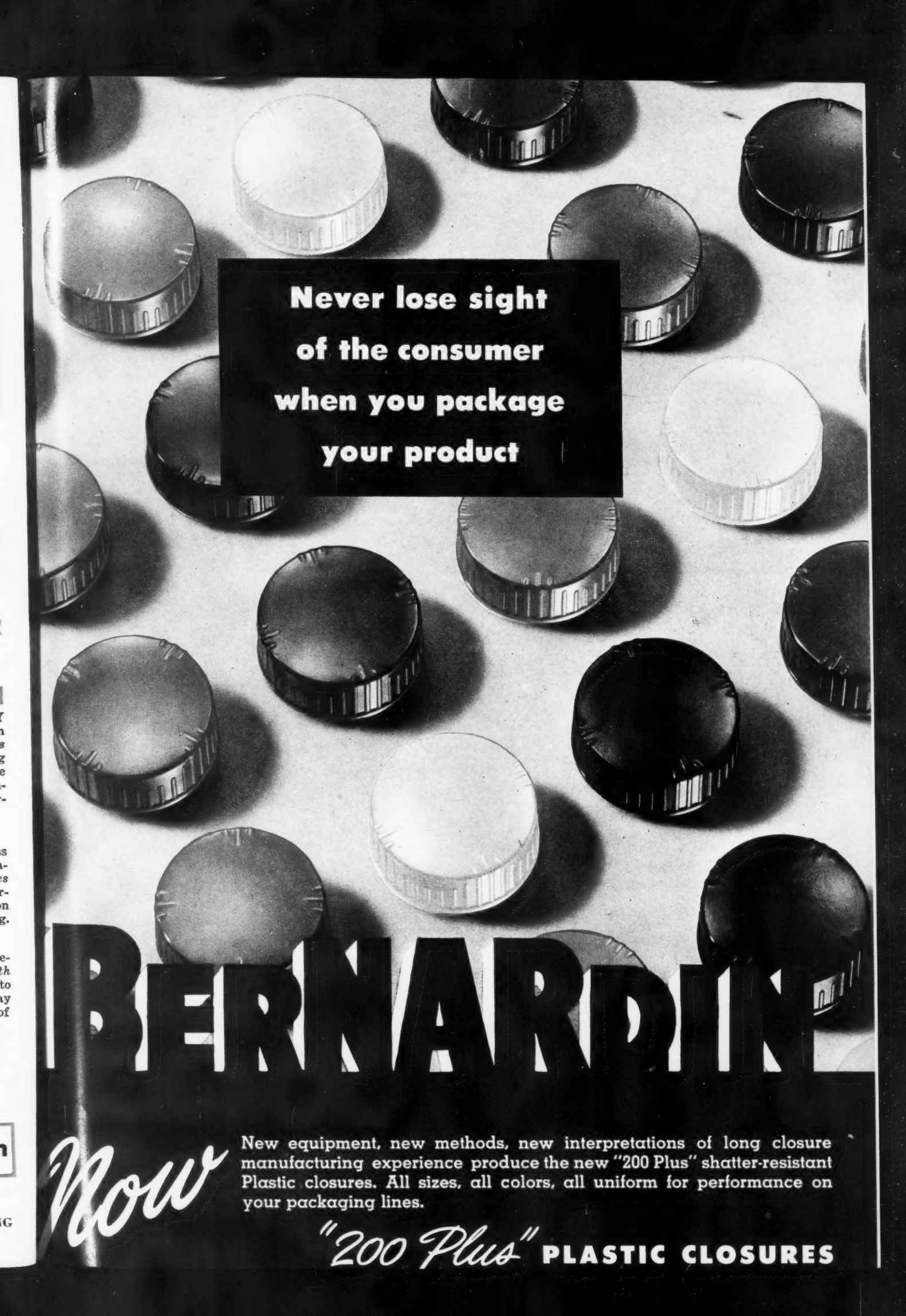
Write Dept. M P

OXY-DRY SPRAYER CORPORATION

320 S. Marshfield Ave., Chicago 12, Ill.

OXY-DRY

full-press-delivery offset prevention



**Never lose sight
of the consumer
when you package
your product**

BERNARDIN

Now

New equipment, new methods, new interpretations of long closure manufacturing experience produce the new "200 Plus" shatter-resistant Plastic closures. All sizes, all colors, all uniform for performance on your packaging lines.

"200 Plus" **PLASTIC CLOSURES**



Now Most America's

**Never lose sight
of the consumer
when you package
your product**



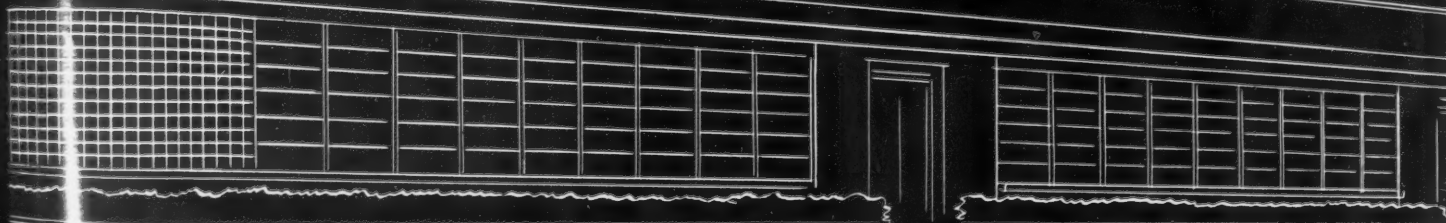
Modern Closure Plant

SPECIALIZING IN *Convenience* **CLOSURES**

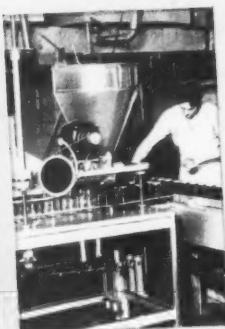
Here in a brand new plant all under one roof, on one of the largest single floors devoted exclusively to the manufacture of metal and plastic closures are combined the newest and most complete manufacturing facilities in the country's most modern closure plant. Here, multi-functional units, conceived, designed and built by Bernardin engineers pour forth by the millions, the finest closures available to industry. Finest? — yes, the finest, for, in every detail from raw material to final inspection Bernardin's exclusive equipment for quality mass production guarantees — the first — the millionth — the hundred millionth closure to be "as specified" — economical on your production line — inviting to the prospective purchaser — efficiently convenient to the consumer each time your package is used. Naturally the efficiencies of this "Most Modern" plant reflect important economies to the packers who use Bernardin Convenience Closures.

• *Production* **EFFICIENCY** • *Sales* **APPEAL** • *Consumer* **APPROVAL**

BERNARDIN



**Never lose sight
of the consumer
when you package
your product**



Speed on production lines, puts profit in your selling price.



The latest in Litho presses speeds production of convenience closures.



Inviting appearance helps tip the balance on impulse sales.



Convenience in opening and re-closing sells and re-sells.

BERNARDIN *adds* these multiple advantages to every glass packed product

ON YOUR PRODUCTION LINES. Faster closing on your own lines with fewer "misses" from variations in glass dimensions . . . that's advantage number one because Bernardin contour threading whether in metal or plastic caps tolerates the widest acceptable variations in glass dimensions yet "spins on, seals tight, reopens conveniently."

LITHOGRAPHY "ON THE LINE". Another advantage, the newest in Lithography equipment is now a part of the production line in Bernardin's new miracle closure plant. That means better service, time saved—and single responsibility for the "sell" in your closure design.

Still more advantages are—

IN TRANSIT—the leak-proof seal that takes your product through casing and car loading and delivers it in the freshest saleable condition.

ON SALE IN COMPETITION—the better sales appearance that *invites* the purchaser to select your product from

among its competitors at the retail outlet.

CONVENIENCE SELLS THE CONSUMER—

and the crowning advantage, the convenience you provide for your customers through Bernardin Closures; convenience that is signally appreciated at the original opening and convenience that is appreciated subsequently with every reopening and reclosing through the whole cycle of use.

Convenience Closures, exclusive product of America's most modern closure plant have the unqualified endorsement of every consumer who finds use of a good product thus made more agreeable. Convenience Closures find hearty endorsement from production, sales, advertising and purchasing executives of a long and mounting list of Bernardin customers. For details interesting to executives in charge of your production, sales, advertising and purchasing, write Bernardin Bottle Cap Co., Evansville, Indiana, U.S.A.

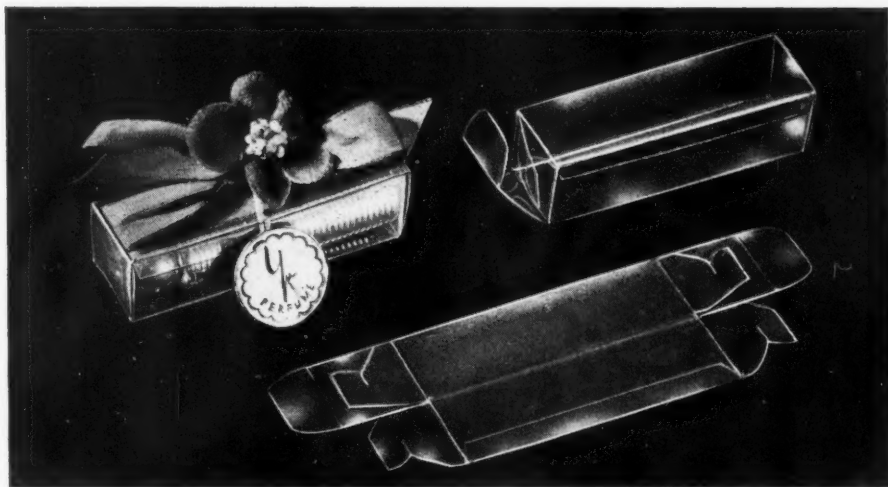
BERNARDIN

State IEP—America's First Manufacturer of Metal Closures

Convenience **CLOSURES**
in metal and plastic

ONLY 1 CARTON

**Cuts cost of your clear-plastic
packaging in these 3 ways**



Of all the rigid plastic cartons made today, the PLASTAFOL CARTON* is the *only* one that folds flat and "sets up" like an ordinary folding paperboard box.

Made of a single, strong piece of top-quality transparent plastic, the PLASTAFOL CARTON offers you 3 important savings which directly result from its exclusive folding design.

- 1. COSTS YOU LESS** in small sizes than any other rigid transparent carton. Thanks to the patented Plastafol process, we can supply you with mass quantities of strong beautiful cartons at unbeatable prices. Ask for a quotation!

- 2. LOWER SHIPPING COSTS.** No freight charges based on bulk—because Plastafol Cartons are *shipped flat*.

- 3. SAVES STORAGE SPACE.** *Fifty* Plastafol Cartons fit where *one* non-folding carton will. Conveniently stored until actual use, they "set up" fast.

A year of use in trade and industry has proved the value and dependability of PLASTAFOL CARTONS. Especially popular in the cosmetic field, they are available in a variety of designs. Ends may be tucked, glued—or locked for extra package security.

* Trademark. The Plastafol Carton is protected by present and pending patents.

Write or phone for information,
technical help, ideas and prices!

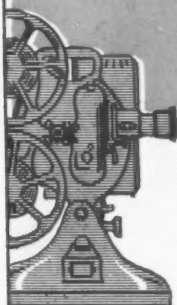
Troth • Bright • Page
INCORPORATED

Paoli, Pennsylvania

Phone Paoli 1846



**\$2,000 Saving
on LABELING alone!**



PRODUCTION LINE
PICTURES PROVE
LABELRITE*
SAVINGS



2. Twin-roller glue control eliminates "Wiping off excess glue" . . . switch that girl to more productive work because there's *never* excess glue on the PONY LABELRITE!

1. Vacuum label pick-up eliminates LABEL-STRAIGHTENING . . . switch the girl who does this job to another department—perfect register is *guaranteed* on the Pony Labelrite.

Ask to see the motion pictures of various Pony Labelrites in action in many plants . . . *seeing is believing!* Note how simple it is to operate . . . It's the *vacuum method*, with its short, continuous straight-line stroke, plus the *twin-roller glue control*, that makes all the difference. Sweet, sustained production that saves the cost of TWO GIRLS, because *this machine does ALL the work a labeller should do.*

Ask to see the movies—and get full details!

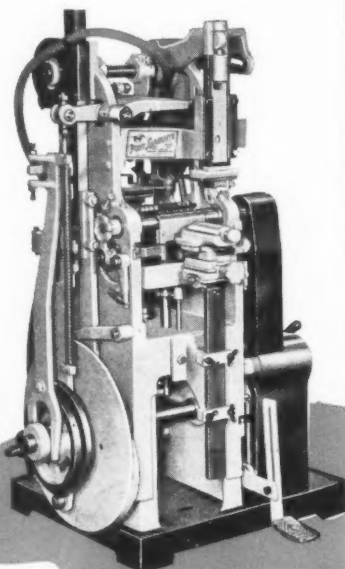


NEW JERSEY MACHINE

Corporation

1510 WILLOW AVE. • HOBOKEN, N. J.

Factory Sales and Service Branches at
Chicago, 325 W. Huron Street
Cincinnati, 1701 Carew Tower
Los Angeles, 2500 W. 6th St.



Visit our Booth #216 at the National
Packaging Exposition, Convention Hall,
Atlantic City, May 10-13.

505.

TMMAGNETIC[®] FOIL PAPERS



- ATTRACT ATTENTION EVERYWHERE •
 - PLAIN IN SHINY AND SATIN FINISHES •
 - EMBOSSSED IN MANY EXCLUSIVE DESIGNS •
- PRINTED ONE AND TWO COLORS IN STRIKING NEW DESIGNS •

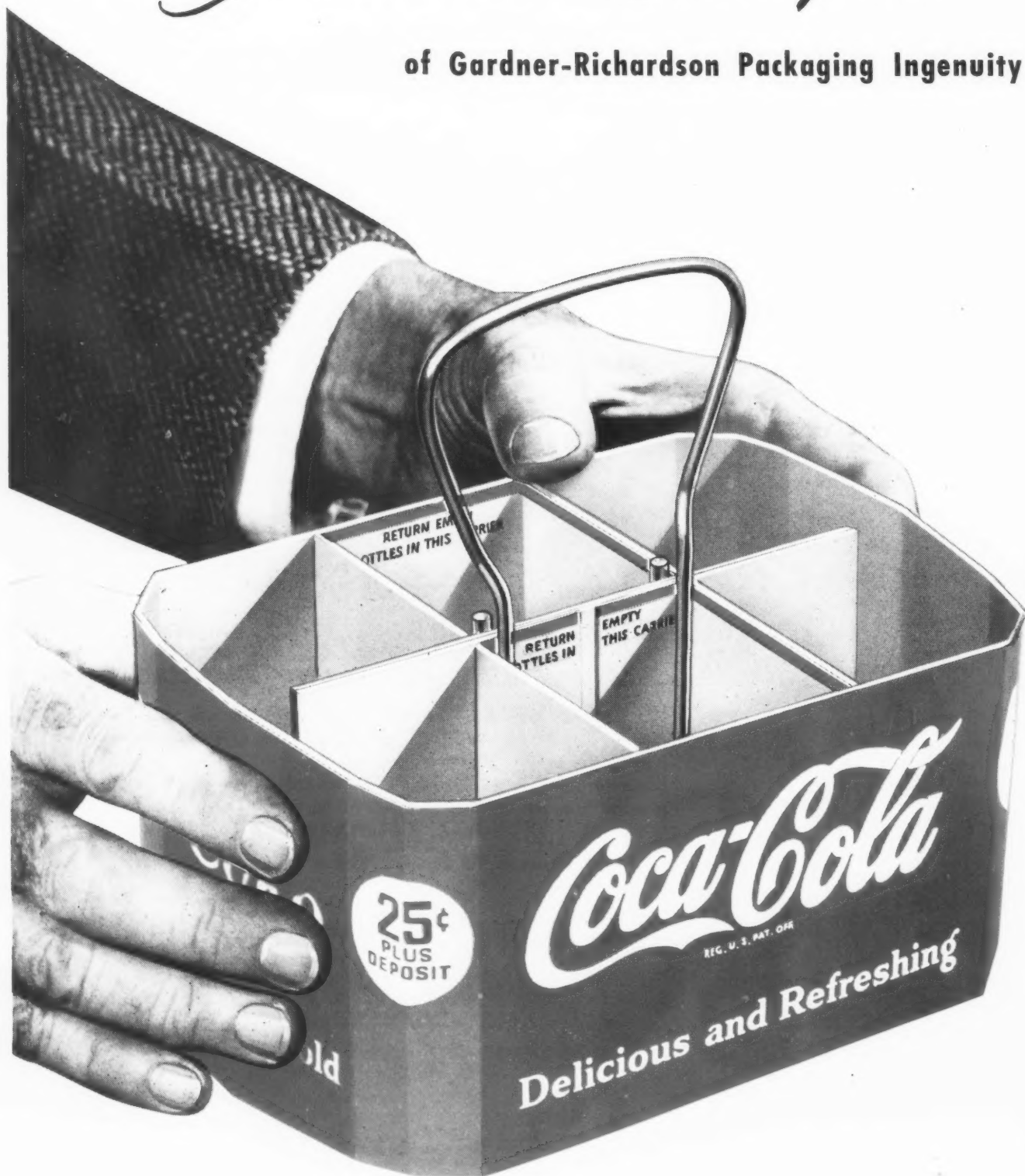
MATTHIAS PAPER CORPORATION

165 W. BERKS ST. PHILADELPHIA 22, PA.

ALSO 30 CHURCH ST., N. Y. C., BOX 127, WELLESLEY, MASS. BOX 1216, GREENSBORO N. C.

Another Example

of Gardner-Richardson Packaging Ingenuity...



The "RING-STYLE" CARRIER for six bottles of Coca-Cola

IT SOLVED A PROBLEM FOR THE BOTTLERS!

ONE OF THE outstanding merchandising successes in recent years is the six-bottle carry-out package for Coca-Cola. But with it came a real problem for Coca-Cola bottlers—filling and re-filling these carriers. And that's where Gardner-Richardson stepped in and did a pioneering job. We developed a new type carrier—the "Ring Style"—that speeds hand loading, and assures smooth, uninterrupted machine loading.

But more than this, we built other practical features into the "Ring Style" carrier to cut

replacement costs, lessen bottle chipping and breakage. These include rounded "no crush" corners... separate bottle compartments with solid bottom support... 4-ply center partition of sturdy paperboard (formulated and made in Gardner-Richardson mills) that prevents handle "tear outs."

Today, the "Ring Style" is saving $\frac{1}{4}$ to $\frac{1}{2}$ in over-all carrier costs for Coca-Cola bottlers. Today the "Ring Style," of all new type carriers, is the volume leader in this field.



CAN WE HELP YOU?

Do you have a product that's "hard to package"? A product that has never been packaged? A new idea that needs packaging, or an old package that needs re-designing to meet today's self-serve, self-merchandising trend? Let Gardner-Richardson packaging experts tackle your problem. No obligation, of course. Write, today.

THE GARDNER-RICHARDSON CO.

Manufacturers of Folding Cartons and Boxboard, Middletown, Ohio

Sales Representatives in Boston, Chicago, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, St. Louis

"Among the Stars"

Pisces...
FEB. 19 TO MAR. 20

**Desirable Aspects:
Vivid imagination, intuitive, direct,
creates deep, lasting friendships,
strong influence over associates.*

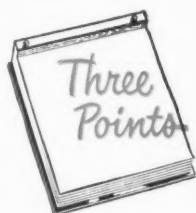
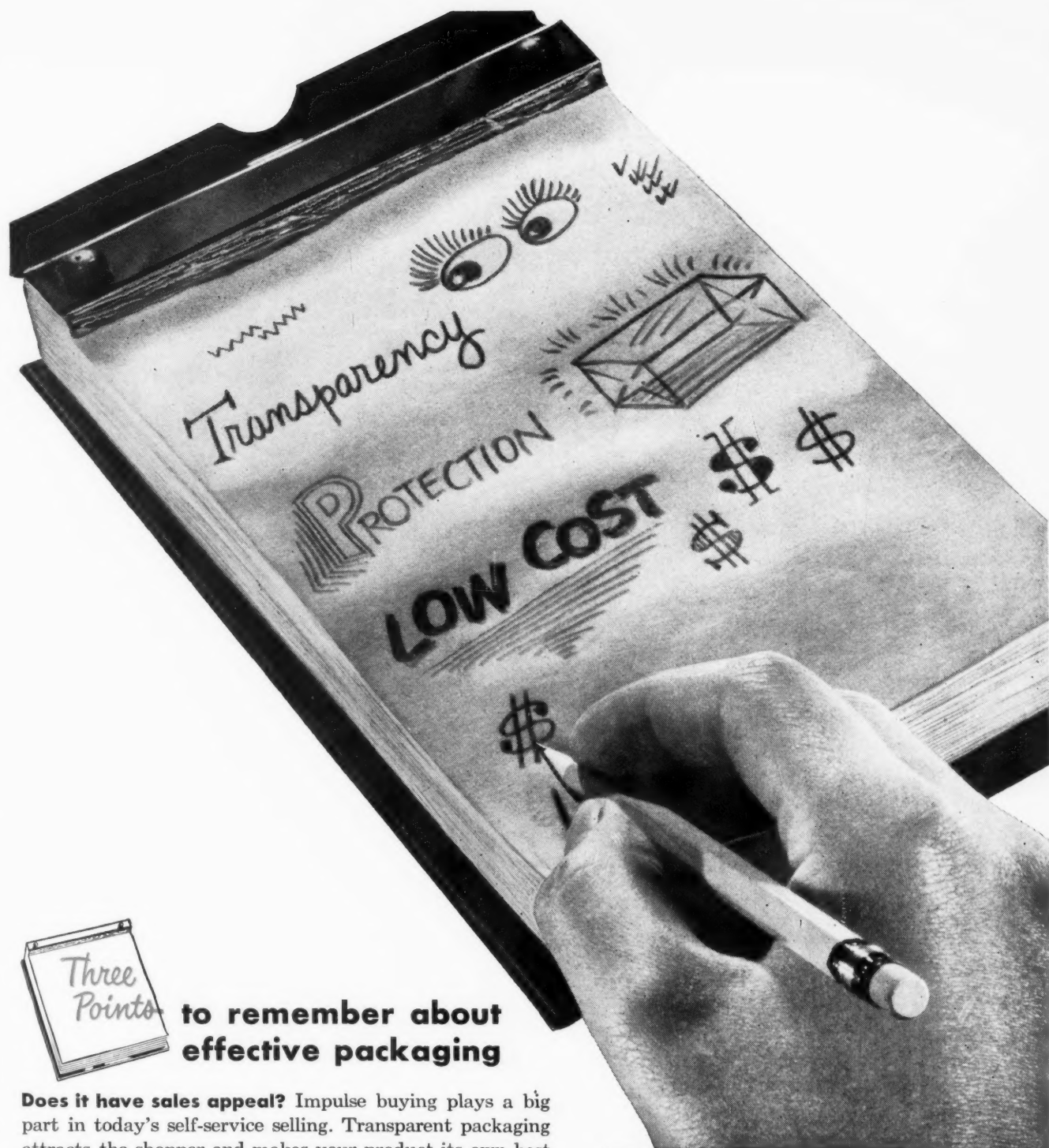
The vivid imagination of Warnercraft designers intuitively produces packaging so different and appealing that your product will be a standout . . . Its direct appeal at "point of sale" will exert a strong influence over prospective customers and will create deep, lasting friendships for you. So when it comes to packaging, choose Warnercraft and put your product "Among the Stars."

W
WARNERCRRAFT®

Finest Vacuum Packaging

THE WARNER BROTHERS COMPANY

Makers of set-up and folding boxes of all types — transparent acetate containers . . . hand made specialties . . . counter displays and dispensers.
Main Office and Factory: 325 Lafayette Street, Bridgeport 1, Conn. • New York Sales Office: 200 Madison Avenue, New York 16, N. Y.



to remember about effective packaging

Does it have sales appeal? Impulse buying plays a big part in today's self-service selling. Transparent packaging attracts the shopper and makes your product its own best salesman.

Does it do a good protective job? Today's shopper wants full value in a product. The package should protect the original quality on its journey to the consumer.

Is it economical? Alert manufacturers want a packaging material to supply the necessary merchandising and protective factors at lowest cost. And one that operates with economy and efficiency on automatic packaging machinery.

Packaging authorities agree that these three basic points are always a timely yardstick to measure effective packaging. E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Delaware.

Du Pont Cellophane

Shows what it protects—protects what it shows
... at low cost



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



A SYLVANIA BAND is always on the job . . . ready, willing and able to give a selling "assist" to your product. Used as a second printed label, it's in there pitching when needed most—at the point of sale, helping deliver extra business for you.

SYLVANIA Bands

"Sealed for PROTECTION . . . Sealed to SELL!"

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION
Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N. Y.

Pacific Coast Representative for Sylvania Bands: King and Anderson, 444 Market St., San Francisco, Cal.

Canadian Representative for Sylvania Bands: Charles S. Thomsen Agencies, 570 Queen St., E., Toronto 2, Canada



WILDROOT Cream-Oil wins "untouched market"

with **WIRZ** tubes...

easy to use — handy for travel —
no waste — no spilling...

ONCE again the convenience of WIRZ Collapsible Metal Tubes opens the way to a new market for an old favorite.

As WILDROOT sales indicate, American men have signified their approval of the smart, new, convenient WILDROOT Cream-Oil Hair Tonic in tubes. And no wonder, it is easy to handle, ideal for travel. No waste, no spilling. Congratulations to WILDROOT on its wise planning!

Are you searching for an "untouched market" or increased sales in your present markets for your creams, pastes, powders, or liquids? Perhaps the greater convenience, protection and appeal of WIRZ Collapsible Metal Tubes and Plastic Caps are the answer. Let's explore their profit potentials together. Write today.



Fourth & Cole Sts. • CHESTER, PA.

New York 17, N. Y.
50 E. 42nd St.

Havana, Cuba
Roberto Ortiz Planos

Chicago 4, Ill.
80 E. Jackson Blvd.

Memphis 2, Tenn.
Wurzburg Bros.

Los Angeles, 14, 1709 W. 8th St.
California

Export Division
755 Drexel Bldg., Philadelphia 6, Pa.

Collapsible Metal Tubes • Lacquer Linings • Wax Linings • Westite Closures • Soft Metal Tubing • Household Can Spouts • Applicator Pipes • Compression Molding

Mr. Salesmanager:

THIS package is your business



THIS PACKAGE

- ✓ **Increases your average sale**
- ✓ **Increases use of your product**
- ✓ **Protects your product**
- ✓ **Provides attractiveness and consumer convenience**

Note—An ethical package particularly indicated for products whose use is prescribed regularly and continuously.

BECAUSE it brings you increased sales without added effort or expense.

HERE'S HOW—Each individual package contains the day's requirements (1 to 5 tablets or a measured unit-dose of powder), clean, crisp, protected. This small, compact package is easily carried in hand-bag or vest-pocket—it provides consumer convenience and satisfaction which of itself encourages regular and consistent use of the product.

The standard-sale container is safely stepped up in content, for quantity buying is doubly attractive with this package—the protection of Sanitape-Sealtite is absolute right up until the last tablet is consumed—numerous members of a family can select their individual package without fuss, fumbling or unnecessary handling. You increase the size of your average sale, and correspondingly reduce sales costs. You sell a larger package and that package sells for you.

This new **Sanitape-Sealtite* package is a revelation in the packaging field—it is a natural sales-maker. We'll be glad to tell you its adaptations in your particular situation.

IVERS-LEE COMPANY • 215 CENTRAL AVE • NEWARK • N. J.

Sanitape-Sealtite is a unique method for packaging pills, tablets, capsules, creams and powders, by which each unit or unit-dose is sealed in its own air-tight compartment—assuring complete protection and maintained efficacy. Packages, machines and methods fully covered by U. S. and Foreign Patents and Patents Pending.



Wistful Magic



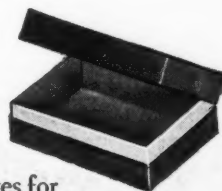
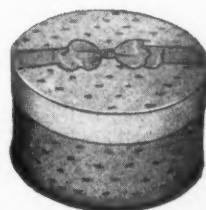
...and a touch of delicate splendor are imparted through the elegant craftsmanship behind Rowell containers.

This artistic achievement adds subtle persuasion to the purchase of cosmetics for face and dusting powders and helps send them on to their heavenly missions.

E. N. Rowell Co. Inc.
Manufacturers of Fine Paper Boxes

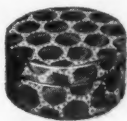
B A T A V I A, N. Y.

50 years of
craftsmanship



Boxes for
pharmaceuticals

Magnificent
color printing



Re-Use Remembrance Packaging All in One Place

Now! Enhance your product with JACOBY artist designed re-use remembrance packaging that sells and resells! Here is packaging that lives long after the product has been used. Here is packaging with utilitarian value that keeps your name ever in sight — ever in use!

The image displays a variety of small, ornate containers and boxes, likely for candy or other small goods. Many of these items are cylindrical or rectangular tins, some with lids that can be removed. Several of the tins have the word "PENNY" printed on them. Other tins feature different designs, such as a sunburst pattern, a floral motif, and a portrait of a person. Some of the containers are open, revealing their contents, which appear to be small candies or trinkets. The overall aesthetic is vintage and artistic.

**Whether it be candy
or liquor, cosmetics or shoes, hats
or bras . . . your package remains to be used
as a luggage piece, a stud or jewel container, a**

"Quality-Like Character-Endures"

- Candy
- Cosmetics
- Liquors
- Shoes
- Gift Boxes
- Hats
- Gift Towel Sets
- Dolls and Toys
- Food Specialties
- Foundation Garments
- Jewelry and Novelties
- Bon Voyage Baskets
- Gift Certificates
- Hair Goods
- Handkerchiefs and Scarf Specialties

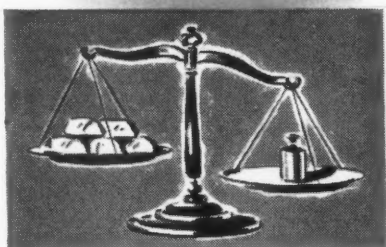
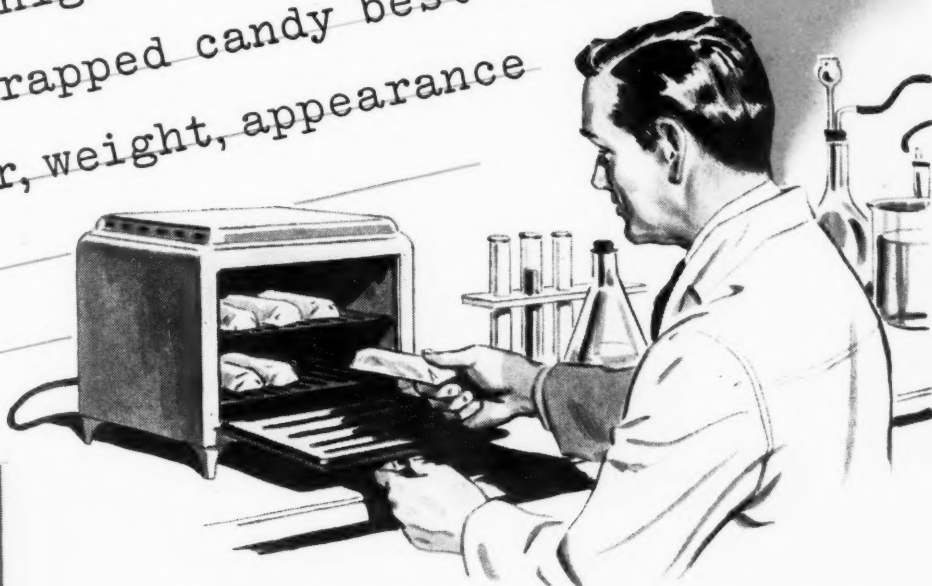
"sales promotional packaging since 1932"

72 SPRING STREET • NEW YORK 12, NEW YORK

BOSTON • DETROIT • CHICAGO • DALLAS • LOS ANGELES

ALCOA PACKAGING REPORT NO. 49-1

25-day, high-temp. test proves
foil-wrapped candy best in
flavor, weight, appearance



Less weight loss—Weight loss of a 1-lb. bar of chocolate pecan fudge wrapped in conventional double-wrap paper—11.0 grams. Weight loss wrapped in wax paper with overwrap of .0004" aluminum foil mounted to wax paper—2.5 grams. Weight loss wrapped in .001" aluminum foil alone—1.5 grams.

Object of lab test: To determine what taste and weight changes develop in chocolate pecan fudge bars when packaged in laminated aluminum foil wrappers vs. conventional double-wrap paper wrappers. Storage temperature—85° F. to 90° F. Length of time—25 days.

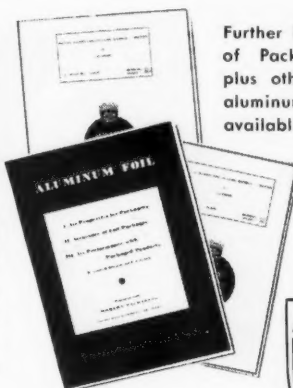
Conclusions: Aluminum foil, with its moisture-vapor transmission rate of practically zero, gives definitely better protection in preserving the freshness, flavor and appearance of the candy (see below). For further information about Alcoa Aluminum Foil, write ALUMINUM COMPANY OF AMERICA, 2129 Gulf Building, Pittsburgh 19, Pennsylvania.



Better flavor—By a control system of taste-checking, foil-wrapped candy was judged superior to the conventional double-wrap, paper-wrapped candy.



Better appearance—Candy wrapped in Alcoa Foil retained soft, creamy texture. That wrapped in paper presented a hard, dry surface with crystallization along the edges.



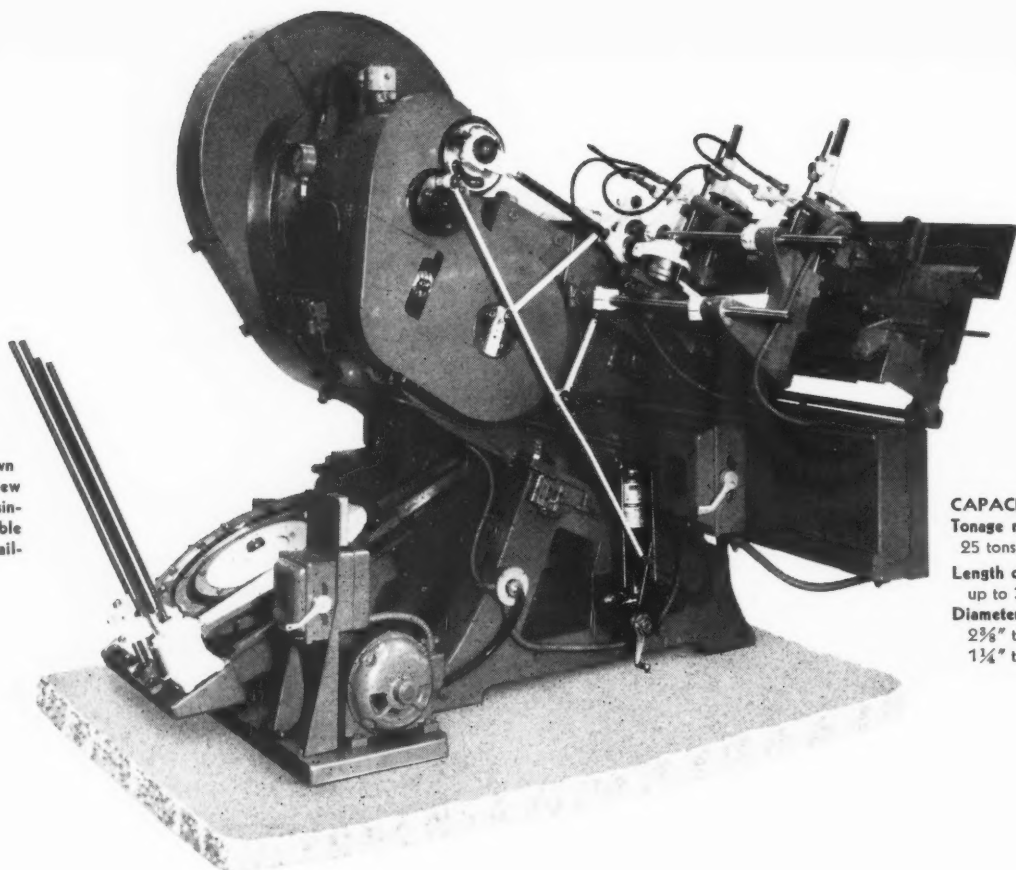
Further information on the results of Packaging Laboratory tests, plus other facts and figures on aluminum foil for packaging, are available upon request.



ALCOA ALUMINUM FOIL

THE QUALITY PACKAGING MATERIAL FOR QUALITY PRODUCTS

The press as shown is set up with the new Hamilton-Kruse single curler. Double curlers are also available.



CAPACITY
 Tonage rating —
 25 tons.
 Length of strip —
 up to 36 inches
 Diameter of cut edge —
 2 3/8" to 7 3/4" — single die,
 1 1/4" to 4" — double die.

high-speed strip feed press

**HAMILTON-KRUSE
 No 301**

This is the automatic strip feed press exhibited by Lima-Hamilton at the Canners Show. It is designed for medium and high-speed production.

The press is of 25 tons capacity and has a stress-relieved welded steel frame with a tonnage rating approximately double the capacity of the press. This extra rigidity of the frame, plus the long slide and gibs, greatly prolongs die life.

A feature of particular interest to all press users is the clutch and its related safety devices. The clutch is of the friction type, of exceptionally rugged construction. It is automatically disengaged upon operation of any of the safeties—including the electric stops for doubles or jams in the feed, for jams in scrap ejection rolls and

other important points. The clutch is equipped with an electric timer that assures stopping the slide at the top of the stroke. The over-size brake is located on the same side of the press as clutch and flywheel, eliminating undue stress on the shaft.

A 5-horsepower motor is mounted on the base of the press. Lubrication is from one central point. The press is available for either single or double dies, or multiple die work with special slides, and is in every respect a heavy-duty precision product.

For complete information and specifications write to Ronald H. Johnson, Sales Manager, Can Machinery Department, Lima-Hamilton Corporation, 60 East 42nd Street, New York 17, New York.

Chicago Sales Office: 400 West Madison Street, Daily News Building, Chicago, Illinois.

DIVISIONS: Hamilton, Ohio—Hooven, Owens, Rentschler Co.; Niles Tool Works Co. Lima, Ohio—Lima Locomotive Works Division; Lima Shovel and Crane Division. Middletown Ohio—The United Welding Co.



PRINCIPAL PRODUCTS: Hamilton-Kruse automatic can-making machinery; Hamilton heavy metal stamping presses; Niles heavy machine tools; Hamilton diesel and steam engines; Special heavy machinery; Heavy iron castings; Weldments; Locomotives; Cranes and shovels.

How Influential Can a Package Be?



Scandals by
Milprint Inc.
Milwaukee



Dia-pettes by
Shellmar Products Corp.
Mt. Vernon, Ohio



Scamperettes by
Miro Container Corp., Inc.
Brooklyn

- WHAT DOES THE PRODUCT LOOK LIKE?
- IS IT IN GOOD CONDITION?
- WHAT ABOUT QUALITY?

How about your package . . . is it just good enough, or is it good in a very special way? There's a big difference. Lumarith* transparent film supplies the answers to the shopper's questions while the merchandise is still under wraps.

How Influential Can A Package Be?

Lumarith transparent film packaging has shown manufacturers how to make a *mountain* of sales out of a *molehill* of opportunity . . . to make a staple item *look* and *sell* like a luxury—and at no extra cost. Write us for names of box manufacturers or convertors who know and apply the sales power of Lumarith to packaging. CELANESE CORPORATION OF AMERICA, Plastics Division, Dept. 8-C, 180 Madison Avenue, New York 16, N. Y.

VISIT CELANESE BOOTH #302,
PACKAGING SHOW, MAY 10 TO 13—
ATLANTIC CITY, NEW JERSEY



Campus by
Traver Corp.
Chicago

LUMARITH* TRANSPARENT FILM

A

Celanese

PLASTIC

*Reg. 'J. S. Pat. Off.



Mattress pad packaged in Visqueen film. Sealed! Sanitary! Dimensions: 20" x 14" x 3"

Quilt packaged in Visqueen film. Dimensions: 23" x 19" x 3"



VisQueen^{*} film solves **BIG** packaging problem... wins **BIG** boost in sales

Doing the unusual often means doing unusually good business. Take the case of the Columbia Ideal Quilting Company, Inc., manufacturers of mattress pads and patchwork quilts—sold through leading textile outlets.

Sales were satisfactory. But sales became *spectacular* when this manufacturer decided to package his products in crackproof, peelproof Visqueen film. Simple reasons: 1. Women have a strong buying preference for bedding they know is absolutely clean—untouched by shoppers' hands. 2. A transparent type of Visqueen film was used—showing

at a glance the attractive quality of the merchandise. 3. Labels stated that Visqueen film wrappings could be reused as household protection bags—a clear case of two values for the price of one! What's more, retailers avoided markdown headaches caused by soiled merchandise.

Visqueen film seals out moisture, dust, air—has a host of properties that make it the logical and economical packaging material for scores of different products. Have a look at what Visqueen film may do for you! Write for samples and complete information.

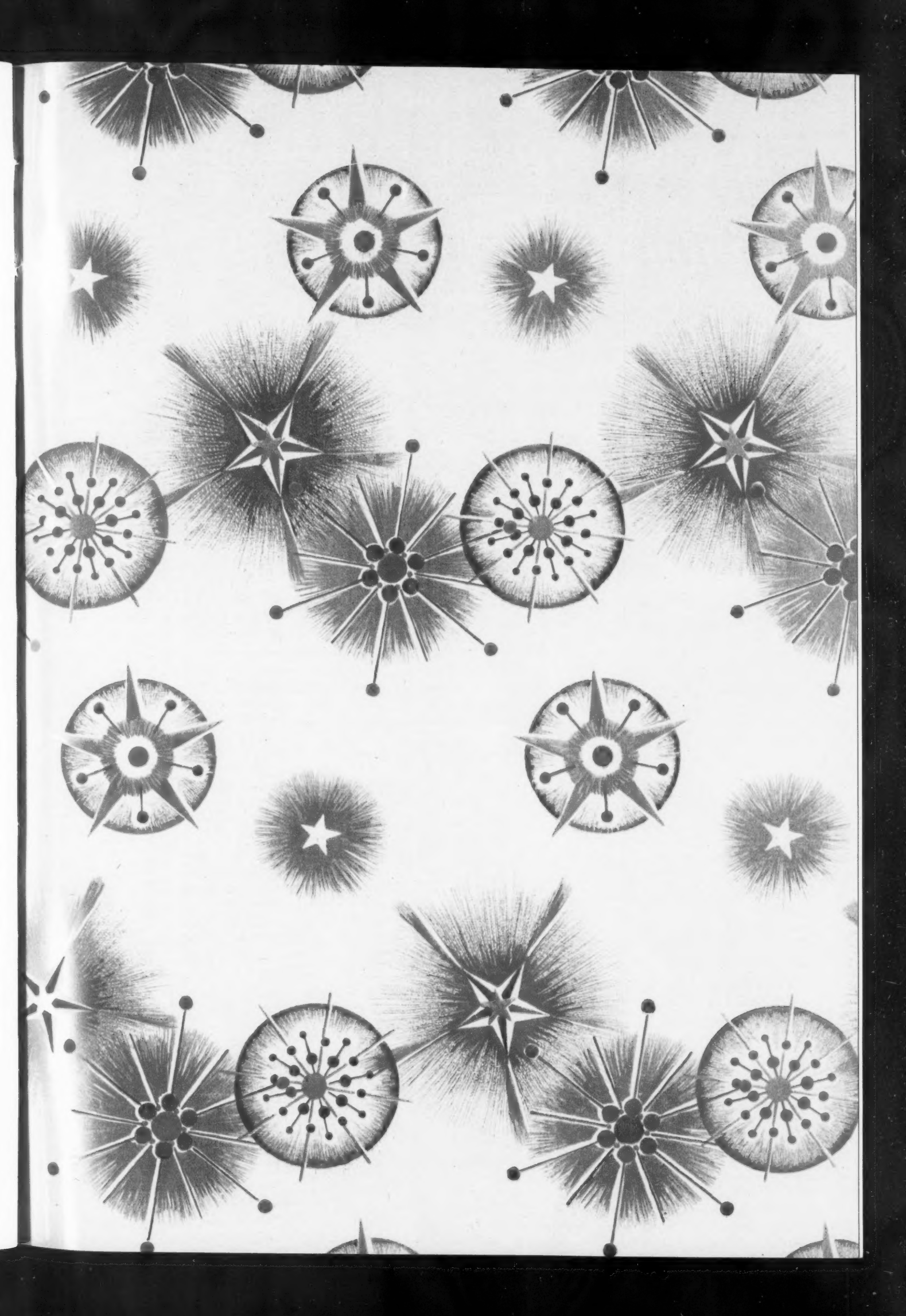
Visit our display at
National Packaging Exposition—
Booth 321—May 10 to 13
Atlantic City Auditorium



VisQueen^{*} FILM A PRODUCT OF
THE VISKING CORPORATION
PRESTON DIVISION • TERRE HAUTE, INDIANA

^{*}T. M. The Visking Corporation

MODERN PACKAGING



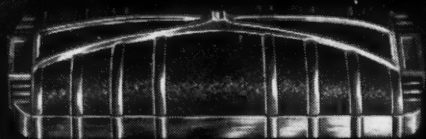
4 ASTOR PLACE, NEW YORK 3, N. Y.

Send Now for Samples and Prices

Branches in: BOSTON • PHILADELPHIA • SEATTLE • SAN FRANCISCO

step up your sales with **P.M.A.***

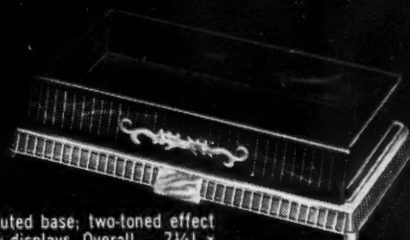
Plastic Packages from our STOCK MOLDS



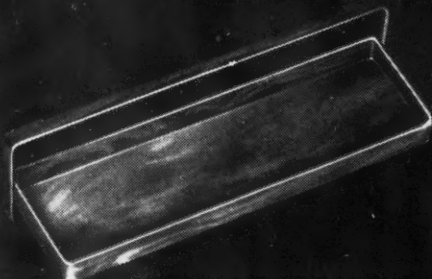
G.C. Large Set Box, hinged cover; jewelry sets; mold not yet completed.
Base $8\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ — Cover $7\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$.



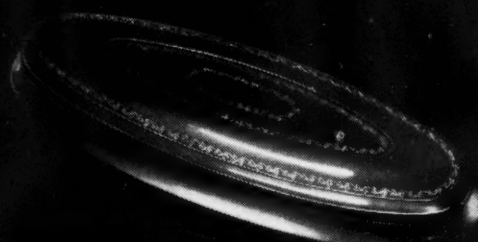
Skeleton jewelry base, also hinged cover if desired; for leather bands, watches, watch bracelets, pearls, key chains, or any long jewelry. Molds not yet completed. Cover — $7\frac{1}{2} \times 2 \times \frac{1}{2}$ highest point. Base outside — $8\frac{1}{2} \times 4\frac{1}{2} \times 1$. Base inside — $7\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$.



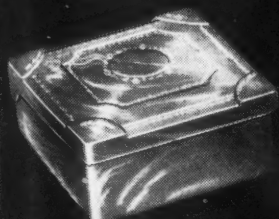
Floral open tray. Fluted base; two-toned effect for floral or jewelry displays. Overall — $7\frac{1}{2} \times 4\frac{1}{2} \times 2$. Inside — $6 \times 3\frac{1}{2} \times 1$.



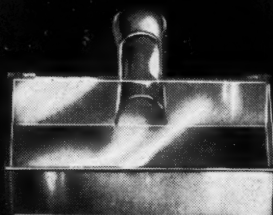
C.L. unhinged box of simulated olive green jade. Also stocked hinged in rose quartz. Molded prongs permit cover to be set up for display purposes (unhinged) for any jewelry or any items. $7\frac{1}{2} \times 2\frac{1}{2} \times 1$.



French Oval Watch Box. Can also be used for any jewelry except pearls — watches, metal necklaces or long jewelry. $9 \times 3\frac{1}{2} \times 1\frac{1}{2}$ overall.



C.M. hinged box of simulated rose quartz. Also unhinged in jade. For jewelry or other units. $3\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{1}{2}$. Contains prongs for display effect.



Dispenser or miniature "silent butler" — all colors, opaque and transparent for candy, nuts, cigarettes and any units. $4\frac{1}{2} \times 3 \times 1$ plus 3-inch handle.



Jewelry jar in ivory and jade green. Unhinged cover. For jewelry or any other items. $3\frac{3}{4}$ diameter x 2 including legs. Inside height $1\frac{1}{4}$.

Utility box all transparent or all opaque. Hinged. Now used for many types of jewelry, cosmetics, photo splicer, etc. 1 or $\frac{1}{2}$ inside height. $3\frac{1}{4} \times 2\frac{1}{2} \times 1$.

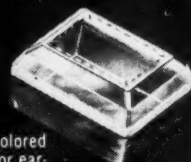


Economy box. Clear-view cover, colored opaque base, hinged. For small watches, jewelry or utility items. Snap closure. $4\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$.

C.S. hinged box of simulated rose quartz or unhinged in jade. For any small jewelry or other things. $3\frac{1}{4} \times 2\frac{1}{2} \times \frac{1}{4}$. Includes prongs for display effect.



R.B. $2\frac{1}{2}$ diameter. All transparent or all opaque, unhinged. For small jewelry, puffs, or utility products. $\frac{1}{2}$ high when closed.



#70 clear-view cover in choice of 5-colored opaque marbelized bases, unhinged. For earrings, rings, pins, etc. $2\frac{1}{4} \times 1\frac{3}{4} \times 1\frac{1}{4}$.

Put more buy-appeal into your product by packaging it in a re-usable plastic gift box by P.M.A.* Write for prices...and suggestions.

***PLASTIC**
MOLDERS
Molded Arts, inc.

1204 44th Ave.

LONG ISLAND CITY 1, N. Y.



Box-top molded by Norton Laboratories, Inc., Lockport, N. Y.

A box top not to be torn off—

...it's made of beautiful fast-cure **BEETLE*** plastic

The American Home Menu Maker, for years a favorite collection of recipes for homemakers, is now housed in a smart-looking box with a top made of lustrous, sparkling white BEETLE plastic.

The BEETLE plastic top has many important advantages in addition to nice appearance, light weight, strength, and durability. Its color goes all the way through and won't wear off. It is easy to clean and to keep clean . . . oils, greases, common solvents, perspiration can be easily wiped off without any damage. It will not warp or distort from exposure to heat . . . won't tarnish or rust . . . is resistant to shock.

Yes . . . BEETLE will make your product sell and stay sold.

Ask your molder for complete information about how Fastcure BEETLE plastic increases production and decreases costs by reducing curing time . . . or write to Plastics Department, American Cyanamid Company, 34B Rockefeller Plaza, New York 20, N. Y.

*Reg. U.S. Pat. Off.

BEETLE* plastics—urea-formaldehyde thermosetting molding compounds. MELMAC* plastics—melamine-formaldehyde thermosetting molding compounds, industrial and laminating resins. URAC* resins—urea-formaldehyde thermosetting industrial resins and adhesives. MELURAC* resins—melamine-urea-formaldehyde thermosetting resin adhesives and laminating resins. LAMINAC* resins—thermosetting polyester resins.



AMERICAN Cyanamid COMPANY

PLASTICS DEPARTMENT

34B ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

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LITHOGRAPHED METAL CANS
to **MEET** and **BEAT**
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COMPETITION today is greater than at any time in history. Heekin pioneered in metal lithography and is the leader in the faithful reproduction of colors on metal cans . . . of assorted sizes, shapes and designs. Bring your lithographed metal can problem to Heekin. We welcome it.



HEEKIN LITHOGRAPHED CANS

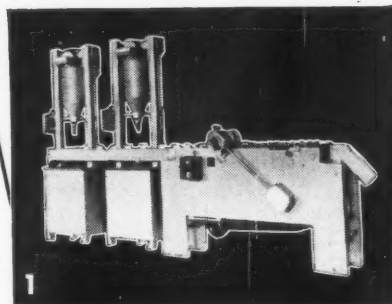
THE HEEKIN CAN CO. CINCINNATI 2, OHIO

THE S&S LINE FOR BETTER PACKAGING

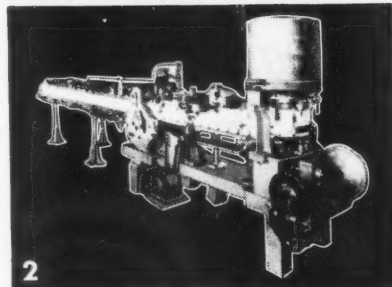
Whether your product goes to the consumer in bottles or cans, odd shapes, boxes or bags, there's an S & S packaging machine with speeds to suit your needs.

Our Engineering staff is always available to help in the solution of your packaging and filling problems.

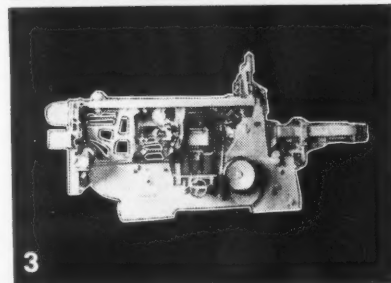
Write for further information



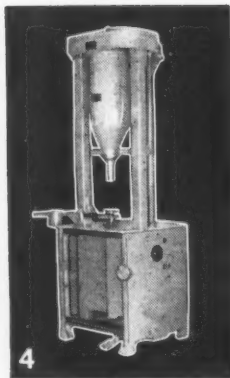
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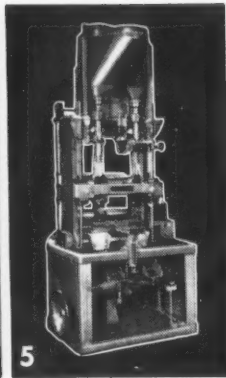
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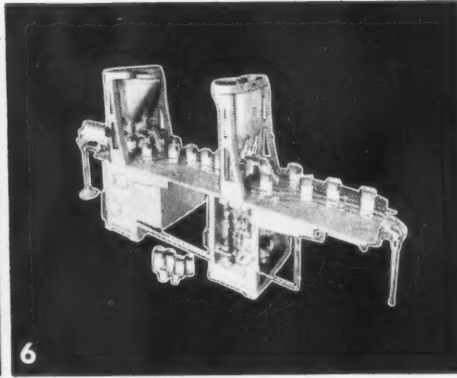
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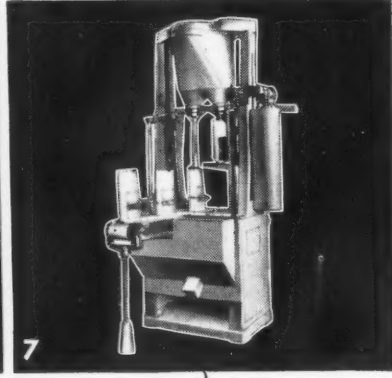
4



5



6



7

1. Bag & Envelope Sealer
2. Neverstop Carton Filler & Sealer
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5. Stokeswrap Packaging Machine
6. Automatic Double Unit Filler
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PAPER BOX MACHINERY

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Subsidiary of Food Machinery and Chemical Corporation

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NEWS!

— for Pencil Pushers

Yes, the billion dollar office and school supply business of this country is definitely catering to the Pencil Pushers of America. They're bringing out a host of new products — and most of these are packaged in the more sales-worthy *set-up boxes*. This year these manufacturers of pencil pushers supplies will buy more than 100 million set-ups.

Whatever your line of business investigate the many versatile advantages of *set-up box* packaging.



NATIONAL PAPER BOX MANUFACTURERS

Association

AND COOPERATING SUPPLIERS

Liberty Trust Building • Philadelphia, Penn.

DO YOU WANT CONSUMERS TO

READ
ABOUT QUALITY.....

.....OR SEE IT?



● In that instant when a woman is choosing the brand of food she wants, the package is often the last convincer. And nothing convinces like sight.

With 86%* of food sales made in self-service stores, self-selling Duraglas containers are your best bet for volume turnover.

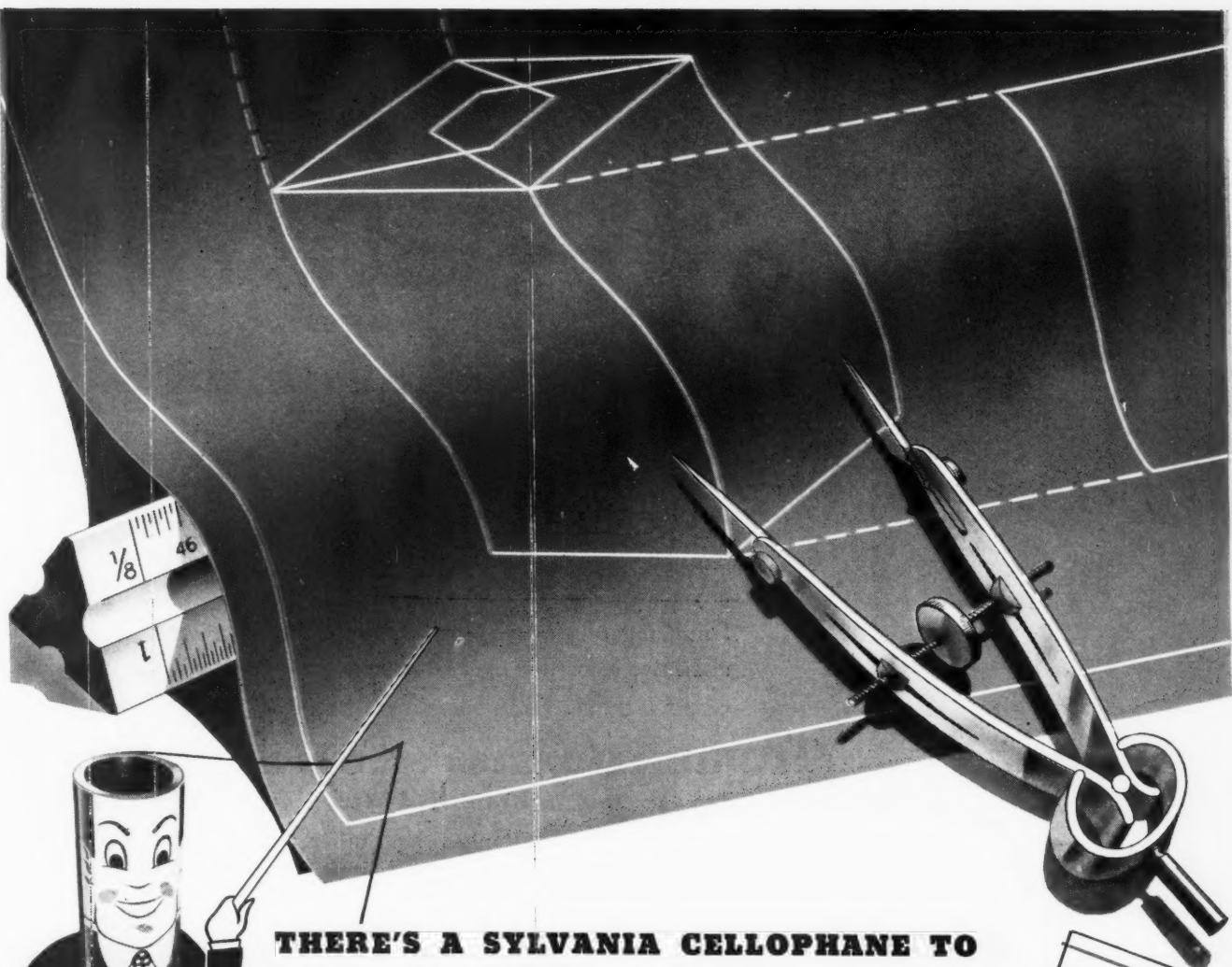
And their filling-line efficiency matches their sales-efficiency. Duraglas containers are sturdy, lightweight, economical. They show the world you're proud of your pack!

*Average figure. Actually 87% of Independent and 85% of Chain Store sales are self-service.

Duraglas
TRADE MARK REG. U.S. PAT. OFF.

CONTAINERS SELL ON SIGHT

OWENS-ILLINOIS GLASS COMPANY • Toledo 1, Ohio • Branches in Principal Cities



THERE'S A SYLVANIA CELLOPHANE TO HELP YOU DESIGN A BETTER PACKAGE!

Here is *transparency* . . . gleaming clarity and visibility. Here is *economy*. Cellophane gives you the most for your packaging dollar. Here is *beauty*. It can be economically printed on high speed presses with lustrous color effects. Here is *versatility*. Cellophane is produced with just the protective qualities demanded by your product. It can be moisture-proof or not. It comes with or without heat sealing qualities—in different weights—for hand wrapping or high speed application on automatic machinery.

Every product demands its own combination of *specific* packaging properties. That is why Sylvania offers different types of cellophane. Let the Sylvania representative help you determine the one for your package. You will find him most cooperative.

KNOW YOUR CELLOPHANE!

The booklet, "Characteristics and Uses of Sylvania Cellophane," fills a long felt want in the packaging field. Here are all the essential facts you need to determine the proper use of Sylvania Cellophane. Basic data on types, weights, protective qualities and recommended use is given in concise, easy-reference style. It's packed with the kind of information you need to meet today's packaging requirements. Write for your copy today. Address Market Development, Department MP-3.



SYLVANIA CELLOPHANE

SYLVANIA DIVISION AMERICAN VISCOSE CORPORATION

Manufacturers of cellophane and other cellulose products since 1929

General Sales Office: 350 Fifth Avenue, New York 1, N. Y.

Plant: Fredericksburg, Va.





PACK IT... PROTECT IT...
SELL IT with TROJAN!

Trojan FOIL

For the Ultimate in Packaging Appeal

Trojan Foil has the sparkling, high-quality eye-appeal that gives any package more interest, more color, more *sell*! Trojan Foils, laminated to paper, board or cloth, are available in a range of attractive colors for many different packaging uses.

Trojan LAMINATED SPECIALTIES

For the Best in Protective Wrappings

Trojan pliofilm, cellophane and other protective laminations and Trojan special heat seal, grease-proof protective coatings guarantee moisture-free, dust-proof protection for packaged goods. Trojan protective papers are widely used and approved by the packaging industry, converters and processors and frozen food packers.

Trojan FOIL LABEL AND MOUNTED PAPERS

For Eye-Catching Sales Messages

Trojan Foil Label Papers and Trojan Foil Mounted Materials are specially made for the graphic arts industry. These colorful, decorative papers are effectively used for direct-mail pieces, financial reports and many other distinctive printing applications.



For more information and samples of Trojan Foil and Laminated Papers, write Dept. 29 today!



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GREATER PROTECTION
ALL ALONG THE LINE

★ EASY TO FILL

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★ LIGHT WEIGHT

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*No other container
protects like the can*

CAN MANUFACTURERS INSTITUTE, INC.

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CHEF'S ROLLS
NATIONAL BISCUIT COMPANY

Skyflake
Wafers

for CELLOPHANE

for GLASSINE

These packages printed
with BBD ANILINE INKS by
PARAMOUNT PAPER PRODUCTS CO., INC.
Philadelphia, Pa.

WHEN it comes to printing Glassine and Cellophane more converters and package printers turn to BBD. Here's why: BBD fast-drying Aniline Inks—**EXCELLOPAKE** (opaque) or **TRANSLUSTRO** (transparent)—assure even coverage, good adhesion, long mileage. Their colors—either standard or tailor-made to your specifications—are rich and sparkling . . . print clean and sharp. What's more—when you use BBD Aniline Inks you also get technical help from shirt sleeve BBD servicemen who are aniline printing specialists. BBD Inks are available all over the world—contact your nearest office for samples and prices.

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LARGEST MANUFACTURERS OF ANILINE INK IN THE WORLD

401 N. BROAD STREET, PHILADELPHIA 8, PA.



Easy to STORE
Easy to POUR



TWO FEATURES THAT
MAKE SALES FOR FOODS IN

Bemis Deltaseal Bags

This attractive, low-cost package not only gives sales-inviting display in stores, but also helps keep customers sold on your brand after they're home.

Women like Deltaseal Bags because the square-pack bag rests well on pantry shelves, and the Deltaseal spout makes it easy to pour direct from the bag without spilling.

Your Bemis representative will be glad to show you how Deltaseal Bags and the Deltaseal Packaging System can help you increase food sales. Get in touch with him now.



AVAILABLE IN SIZES FROM 2 TO 25 LBS.

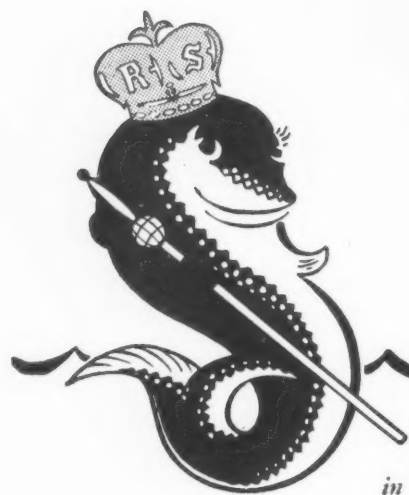
DELTA SEAL: Reg. U.S. Pat. Off.



Bemis

"America's No. 1 Bag Maker"

Baltimore • Boise • Boston • Brooklyn • Buffalo • Charlotte • Chicago • Cleveland • Denver • Detroit • East Pepperell • Houston • Indianapolis • Jacksonville, Fla. • Louisville
Kansas City • Los Angeles • Memphis • Minneapolis • Mobile • New Orleans • New York City • Norfolk • Oklahoma City • Omaha • Peoria • Phoenix • Pittsburgh
Salina • St. Louis • Salt Lake City • San Francisco • Seattle • Wichita • Vancouver, Wash. • Wilmington, Calif.



and a **ROYAL SNACK**
it is —

when one of these herring delicacies is included in that odd-time meal. They're the aristocrats of the herring world, and they're packed in a variety of taste tempting combinations that make mouths water in anticipation at first glance.

There's plenty of appeal in the Royal Snack* package, too. The clear glass jars, that show off the product to advantage, are closed with colorfully decorated Crown Screw Caps. These are the screw caps that more and more food packers are using. They give freedom of application on production lines that make them economical to use, and they also give the dependable sealing that assures product protection.

Let a Crown Closure Representative explain about the patented Deep Hook Thread in these screw caps. Let him show you the special liners Crown has developed for individual sealing requirements. Maybe you'll get some ideas you can use to advantage in the sealing of your product. Crown Cork & Seal Company, Baltimore 3, Md
World's Largest Makers of Metal Closures.

*Packed by S. A. Hiram Co., Inc., New York

CROWN CLOSURES

Approved by millions of housewives



BUSINESS AS USUAL?

**Calamity planning never made for progress
... business *must* go on, even in a hot war**

Remember when, only yesterday it seems, most every business shortcoming—as well as shortage—was sarcastically alibied with “Don’t you know there’s a war on?”

Today, with America’s hot war fresh in memory, the advent of our cold war—and its threats of becoming hot—prompts a great deal of temporizing. Whether that is justified by the facts, and in what degree, obviously depends on businesses in particular.

Equally obvious in light of recent experience, however, is the fact that business in general *must* go on . . . even during a hot war. Not “as usual” in most cases, but with an eye to the progress and improvements that form our economic foundation in peace *or* in war.

The companies that refuse to mark time, simply because there is no *guarantee* of peace, have a tremendous competitive advantage. For such companies in the

package goods field, there’s an *eyeful* of ideas for progress and improvements in recent additions to the Ridgelo line of custom-made clay coated boxboard and packaging materials.

For example: A new boxboard of amazing strength; a specialty grade made by clay coating of Solid Manila; clay coated Kraft, for protective multi-wall bags; plasticized coating for crack-free folding of heavy base stock.



MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY

REPRESENTATIVES

H. B. Royce, Detroit • Philip Rudolph & Sons, Inc., Philadelphia
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Smart Choice...

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...For 2 Reasons

1. There's an Oxford Paper that's Right for Every Printing Need

We've been concentrating on fine book papers for half a century—and the excellent printing quality of every paper in our full range of grades shows it.



2. Oxford Papers Are as Handy as Your Phone

Oxford paper merchants make it their business to meet your needs for Oxford papers promptly from stocks in 64 principal cities from coast to coast.

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	The Whitaker Paper Co.
Cleveland, Ohio	The Cleveland Paper Co.
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Providence, R. I.	Carter, Rice & Co. Corp.
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Sacramento, Calif.	Blake, Moffitt & Towne
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San Diego, Calif.	Blake, Moffitt & Towne
San Francisco, Calif.	Blake, Moffitt & Towne
San Jose, Calif.	Blake, Moffitt & Towne
Seattle, Wash.	Blake, Moffitt & Towne
Sioux City, Iowa	Western Newspaper Union
Spokane, Wash.	Blake, Moffitt & Towne
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Toledo, Ohio	Paper Merchants, Inc.
Tucson, Ariz.	Blake, Moffitt & Towne
Washington, D. C.	The Mudge Paper Co.
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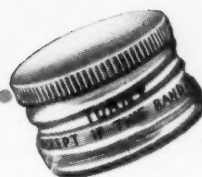
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High speed application



Tamper-proof sealing



Finger tip opening

Pilfer-Proof!

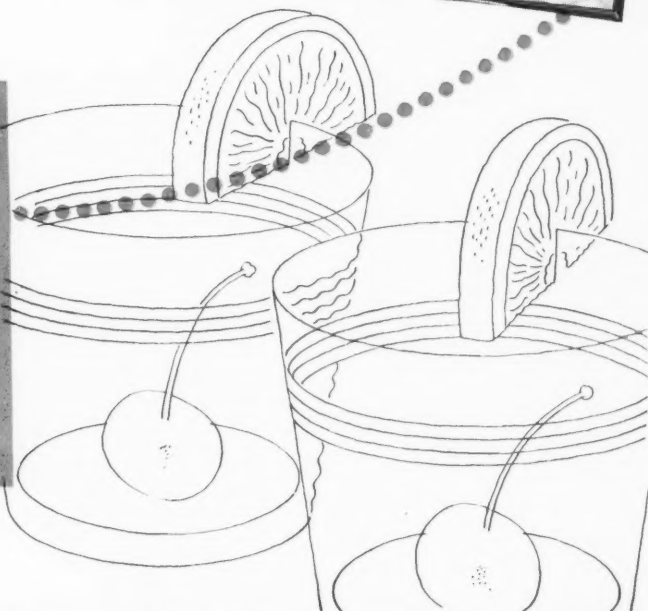
**"Do not accept if
this band is broken"**

Every Alseco Pilfer-Proof RO Cap gives full warning to a customer, "do not accept if this band is broken". The attached locking ring guards your product's quality—once broken, it can't be replaced. Corrosion-resistant aluminum cap and locking ring are rolled-on each individual bottle to make the contents tamper-proof... assure full value for every customer.

FREE! Informative 24-page booklet fully describes all types of Alseco Seals... liners and facing materials... gives details on ten different types of sealing machines. Write today for helpful booklet, "Alseco Seals". Address: Aluminum Seal Company, Inc., Richmond, Indiana.



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ALUMINUM SEAL COMPANY, INC. • RICHMOND, INDIANA • SUBSIDIARY OF ALUMINUM COMPANY OF AMERICA

MARCH 1949

71

★ ★ NEW Stoway ★ ★ PACKAGE PARADE!

Proven, consumer acceptance of the STOWAY PLASTIC CONTAINERS assures your product of tested selling appeal.

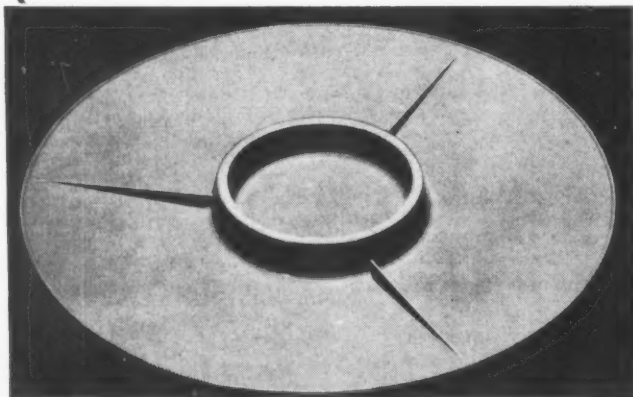


BABY STOWAY—5 oz.

JUNIOR STOWAY—8 oz.



UTILITY DISHES



SERVICE DISH

STOWAY PLASTIC CONTAINERS are adaptable to many kinds of products. Each container is made of odorless, tasteless, chip-proof STYRON and will withstand heat to 160 degrees F—cold to -40 degrees F. Each container has been designed for appearance, utility and durability.

No. 2400 Baby Stoway—5 oz. capacity—twist-seal lid—3 transparent colors.

No. 2600 Junior Stoway—8 oz. capacity—twist-seal lid—3 transparent colors.

No. 600 Utility Dish—16 oz. capacity—4" x 4" 2 1/2"—tight seal lid—3 transparent colors.

No. 1200 Utility Dish—32 oz. capacity—8" x 4" x 2 1/2"—tight seal lid—3 transparent colors.

No. 1800 Service Dish—14" diameter—1 1/8" depth—lightweight—5 opaque colors and frosted white.

STOWAY OFFERS LOW COST—SALES BUILDING—CONSUMER ACCEPTED PACKAGES WITH A PLUS APPEAL OF HOUSEHOLD UTILITY!

A PRODUCT ATTRACTIVELY PACKAGED IS
ALREADY HALF SOLD

Wire or write for detailed information and prices.

**SOUTHERN CALIFORNIA
PLASTIC COMPANY**

1805 FLOWER ST. • GLENDALE • CALIFORNIA

* T.M.





Your Product, too,
can earn
"Star Billing"

WITH

**PLANNED
PACKAGING**

★ In a Farrington Package . . . planned, designed and built for it alone . . . your product commands front-window attention. And deserves it, wherever it's shown, wherever it goes.

You'll be interested to know that your product can be dramatically displayed in Farrington Planned Packaging at a cost lower than you guessed.



FARRINGTON MFG. COMPANY

GENERAL OFFICES: 80 ATHERTON ST., BOSTON 30, MASS.

CANADIAN PLANT: FARRINGTON MFG. CO., LTD., 1191 BATHURST ST., TORONTO 4

SPECIALTY BOXES • DISPLAY TRAYS • METAL SPECIALTIES • CHARGA-PLATE SERVICE

Welch!

**Pervenac* steps up Labeling
Speeds from 75 to 300 Bottles
Per Minute with
Precise Registration**

New speed records are achieved as Pervenac* is applied to glass at The Welch Grape Juice Plant, Brocton, N. Y. Highly pleased by results, Welch has also converted to Pervenac* labeling at their San Leandro, Calif., and North East, Pa., plants.



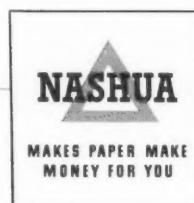
A 300% increase in labeling speed... positive adherence to bottles moist from the pasteurizer... no rubbing off or shifting of labels during transit — one machine to do the job instead of four... these were the major reasons why The Welch Grape Juice Company turned to Pervenac* for labeling juices, jellies, and preserves.

Designed for use on the New Jersey Machine Corporation Model 160, Pervenac*

is the only heat seal label that can be activated and then applied by air pressure to moving bottles. Wet or dry, Pervenac* labels stick until removed in a washing machine. If you have a problem involving adhesion to wet or dry glass, paper, metal, wood or rigid molded and laminated plastics — write Nashua's Sales Research Department for advice and samples.

* Trademark (formerly Thermo-Kote)

NASHUA GUMMED AND COATED PAPER COMPANY
NASHUA, NEW HAMPSHIRE



Modern packaging



Vol. 22 No. 7 March 1949

MECHANIZED LINES for liquid products function continuously and efficiently in the contract packager's plant. This one in Cleveland handles cleansing specialties, valve oils and other household and automotive products, in sizes of from 1 oz. to 1 qt. for a variety of manufacturers.

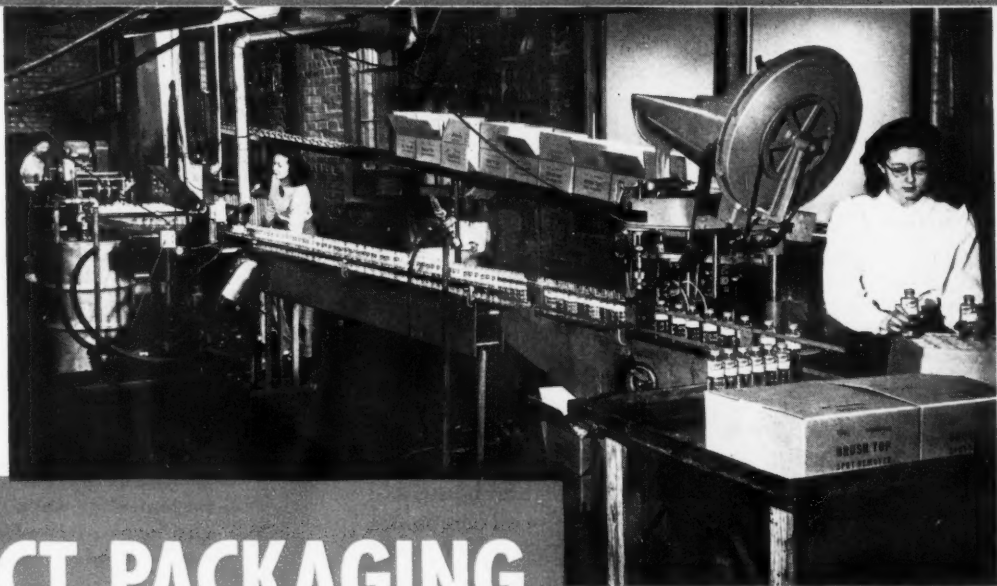


PHOTO COURTESY PRODUCTS PACKAGING, INC.

CONTRACT PACKAGING

WHAT IT IS AND WHAT IT DOES. MANUFACTURERS IN MANY FIELDS

FIND ECONOMY IN 'FARMING OUT' PACKAGING JOB TO SPECIALISTS

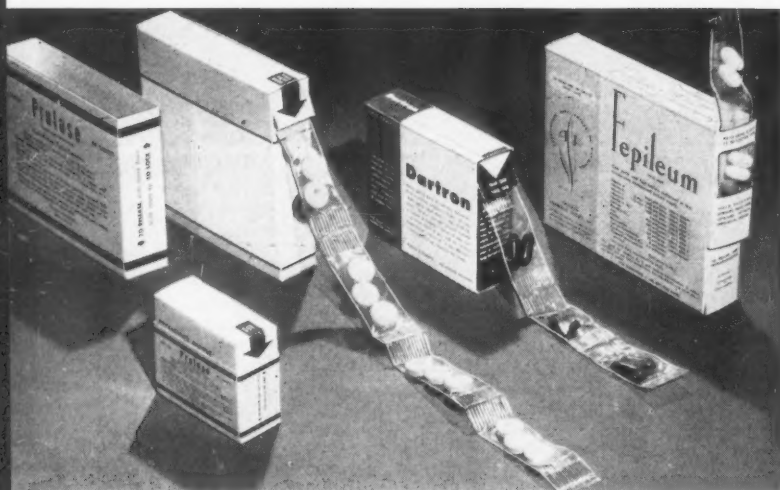
Keeping pace with the development of packaging, a type of service organization has grown up that is proving very useful to many producers of packaged merchandise, both large and small. Various terms are used to designate this type of service—"contract packaging," "custom packaging," "packaging service," "private-label packaging." What is referred to in each case is a service organization with equipment, facilities and personnel, all geared to perform packaging operations for producers of products other than their own, on a contract basis. The term may include receipt and storage of the product in bulk containers; receipt—perhaps procurement—of consumer-unit packaging material and shipping containers; formulating, blending, mixing and assembling operations; packaging packages and containers in preparation for shipment; making shipments and keeping of records—all in the name of the client or principal.

There are a number of these organizations, most of

which have grown up in comparatively recent years—too recent, in fact, for the Bureau of the Census to take any cognizance of them. Usually they are not large establishments; their sphere of operations is ordinarily confined to their own neighborhoods.

In the belief that the packaging field as a whole is insufficiently informed on the specific services that can be performed by the contract packager, MODERN PACKAGING has made a careful study that involved contact with several score of these establishments.

Some of these concerns, still going strong, date back as far as three decades and some of them were in business in the horse and buggy days, packaging such things as dressings for buggy tops and harnesses. A great impetus was given to the business when the oil companies and the tire and rubber companies decided to market such specialty items as polishes, waxes, cleaners, lubricating oils and insecticides. These manufacturers were not properly equipped for the types of packaging opera-



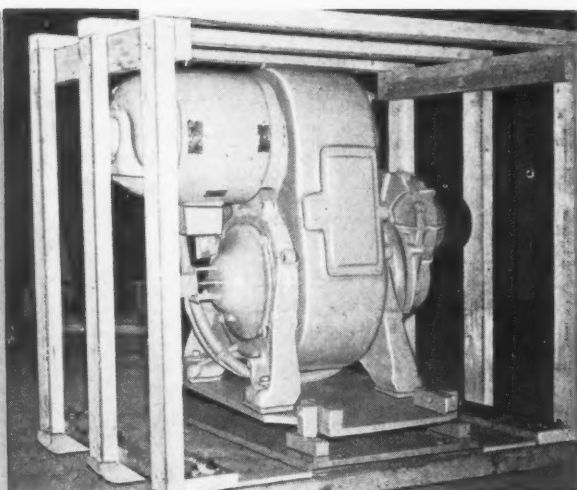
PATENTED FORMS of packages are available only from contract packagers in some cases. Popular in the drug field is the method, illustrated above, of packing single-dose units in a continuous strip of cellophane, dispensed from a special type carton. PHOTO COURTESY THE WM. STEVEN CO.

tions required and were driven to seek facilities outside their own plants to have this work done. With few exceptions, such products as automotive and household chemical specialties, merchandised by the oil companies and tire and rubber companies under their own brands, are still put up by specialized types of contract-packaging organizations.

War-born expansion

Some of these concerns go back no farther than World War II, when anyone with any packaging knowledge or experience and a little equipment was sure to find plenty to do. Packaging service organizations mushroomed all over the lot. Some of them disappeared when war demands subsided, but a great many of them remained in existence, adapted their facilities and personnel to commercial packaging. They are doing a flourishing business today. They can be found in almost any part of the country from coast to coast.

With some types of service, supply precedes demand. Not so—in most instances—in the case of the contract packager. One of the questions asked by *MODERN PACKAGING* was "How did you happen to start?" The answers definitely indicate that the pressure came from the client in the majority of instances. Customers required high-speed automatic packaging service for production quantities too small to warrant the purchase of equipment. In one instance the motivating force was the recognition of the fact that the small concern is at a tremendous disadvantage from an advertising and merchandising point of view in trying to compete with larger companies which are able to conduct national campaigns. Far better, this company concluded, to perform the packaging service for someone else, who would be able to finance a nation-wide distribution program. One company developed its own specialty which it marketed in a somewhat limited radius around



CRATING of heavy machinery and equipment for export shipment is very often an exacting type of job which is best done by a contract packaging specialist in this particular field. PHOTO COURTESY ACORN PACKAGING & PACKING CORP.

UNUSUAL SERVICES can be performed economically by the contract packager's deft, experienced workers. Here are shown workers filling envelopes with advertising matter for enclosure with shipping cases of packaged merchandise.



PHOTO COURTESY ADVERTISING DISTRIBUTORS OF AMERICA

its own territory. It received so many requests for the same specialty, privately branded, that over night the company became a private-label packager, adding to its operations several other types of packaging service as time went on.

Inherent in this type of service is the fact that most of the concerns are specialists in their operations. They seem to have such versatility and adaptability that they will tackle any kind of a packaging operation and make a profitable go of it. As they become better established, however, they tend to specialize in one type of packaging or another. Although one concern listed 17

different operations that it performs, most of them limit their activities to a comparatively few operations that are similar in character.

Consumer units of all sorts come within the scope of operations performed—filling and labeling of bottles, jars and metal cans; filling and closing of collapsible tubes; forming, filling and sealing of bags and flexible packages; handling and packing set-up and folding boxes; heat sealing of packets and envelopes—these are the commonest operations. But bulk packaging comes in for its share, too, so that the packager can obtain service in the filling of corrugated shipping cases, construction of nailed wood boxes, packing of wire-bound boxes, filling steel and fibreboard drums and carboys, as well as the crating, bracing and staying of heavy machinery.

Trend toward specialization

Automatic packaging equipment is so highly specialized that very naturally the contract packager finds himself specializing in a comparatively few related operations or devoting his attention to a limited list of products and these specialists appear to have little difficulty in keeping their plants busy.

In answer to MODERN PACKAGING's question "Do you specialize in any particular field?" it was disclosed that while no one organization does everything, yet the seeker after packaging service can find some organization that is thoroughly familiar with problems similar to his own. One company, for instance, specializes in handling detergents; another in the preparation of promotional mailings, such as doctors' samples; still another has organization and equipment for the pack-

aging of irregular-shaped items. The specialized variations are numerous.

In addition to packaging operations, some concerns offer the facilities of laboratories and pilot plants. Many are able to formulate products for their clients and some are equipped with facilities for mixing the ingredients of their clients' products. Assembling comes in for its share of attention; one concern makes a specialty of assembling toys preparatory to packaging them. A great many of these establishments have built their business on a single operation, such as the bagging of tea, tube filling or "unit packaging." Most of these establishments have long since graduated from haphazard quarters like the old lofts or abandoned factories which some of them occupied formerly. Today it is common enough to find a contract packager housed in a building constructed specifically for his type of operations—spacious, clean, easily accessible—where product and packaging supplies may be stored and handled under ideal conditions. Those who number pharmaceutical or food manufacturers among their clients are able to provide facilities that meet the most exacting standards of the Government bureaus conducting periodical inspection.

One of the prime requisites of the contract packager is a staff of versatile workers. Most of the plants are not too roomy and all available space is taken up with (1) equipment, (2) bulk goods waiting to be packaged, (3) packaging material for consumer units, as well as for shipping purposes and (4) the completely packaged goods in bulk containers ready to be shipped out. The employees are able to work in what strikes the observer as very confused conditions. They change from one

PHOTO COURTESY STEVENS-WILEY MFG. CO.



BIG ENOUGH to handle the output of a good-sized manufacturing plant is this Philadelphia contract set-up of fully automatic lines for filling powders and free-flowing dry products.

IMPROVISATION is a talent of the experienced contract packager. This home-made device is filling envelopes with cocoanut—notoriously difficult to package—at rate of 70 per minute.

PHOTO COURTESY THE EDLAW CO.



type of operation to another on short notice. At one time they may be operating a carton filling line, soon to be shifted to the task of affixing decalcomania labels to wine bottles by hand.

In most of these plants the average of intelligence and earning power of the personnel is somewhat higher than that in organizations where the requirements are not so stringent. As one contractor points out, successful and profitable operations depend on highly paid employees who are capable of doing many different types of jobs and different kinds of hand operations at more than average speeds. He goes on to say that wage rates cannot be based on piece work, as perfection—not speed—is the criterion of success. His employees are not penalized if they stop work instantly upon discovering defective material or inefficient operation. One contract packager boasted, "We've got a happy bunch here. They like the variety; they enjoy changing from one job to another much more than if they were doing nothing except working on bolt No. 287."

Not often is the contract packager called on to originate packages for his clients, either from the standpoint of their structural qualities or their surface design. In a few cases, however, they are equipped to offer that service and some of them are in a position actually to manufacture packages, such as envelopes, trays, labels and even folding or set-up boxes. Many more of them offer their wide experience as a guide to the selection of package material or package forms and there are

numerous cases where the contractor buys the packaging material for his clients.

Operations that are out of the ordinary are routine occurrences for the contract packager. Here are some of the interesting and unusual jobs reported by those who answered a MODERN PACKAGING questionnaire:

"Presently we are packaging millions of pounds of dried milk, much of it with gas, in the Minnesota-Wisconsin area, largely for export under the Marshall Plan."

"One of our jobs was packing hot chocolate in envelopes for Western Europe. This involved the problem—which we solved—of packing on humid days without de-humidifying equipment."

"For one of our clients, it is a routine operation to package motor oil from tank cars to 1-qt. cans."

"We set up a complete production line for the assembly and packaging of plastic toys."

"Starting from scratch, we produced 7,000,000 small 3-oz. and 8-oz. insecticide packages for a customer within a nine-months period."

"For the packaging of two colors of vitamins in jars, we built a semi-automatic system that proved highly satisfactory."

Justification of contract service

There is ample justification, economically and otherwise, for contract packaging. The organizations engaged in this activity can buy high-speed automatic

PHOTO COURTESY SEALED LIQUIDS CO.



HAND OPERATIONS are imperative when runs are too small for automatic machines and are best done by experienced hands. Here inner seals are fitted and hammered into position in each individual can prior to the capping operation.

PORTABLE UNITS can fill in where needed and can be readily shifted from one product to another. Here a semi-automatic filler packs powder into glassine envelopes, sealed on heat sealer shown at left. PHOTO COURTESY PACK-IT, INC.



INDIVIDUAL ROOMS are provided by some contract packagers in which nothing else is handled while a particular lot of drug or food is being run. Coding, lot numbering and complete production control are assured and detailed records of the operation are kept for the client.

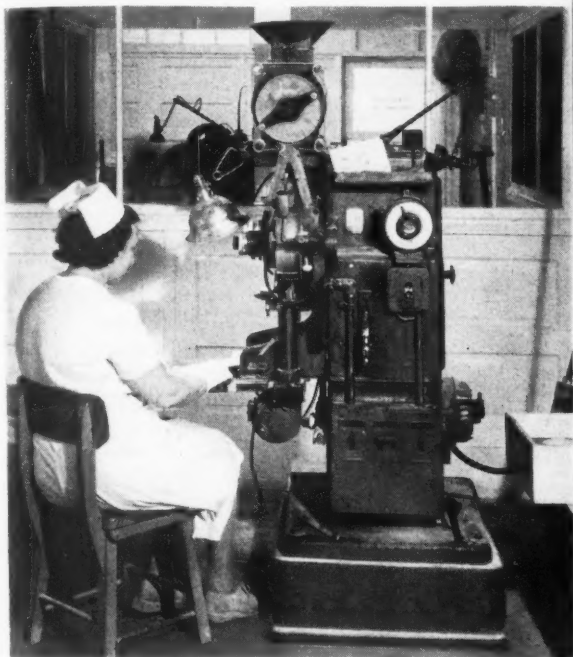


PHOTO COURTESY IVERS-LEE CO.



AMPLE FACILITIES for warehousing and storage are frequently available at packager's plant. Careful check is kept of bulk goods, packaging materials and finished product ready for shipment. PHOTO COURTESY GENESEE RESEARCH CORP.

equipment which is adaptable for a variety of packaging operations. By keeping that equipment busy with many jobs—any one of which would be too small to justify the purchase of the equipment—the contract packager usually can actually produce complete packages at a cost considerably lower than his customer would incur. The latter presumably would have only irregular use for the equipment or might be obliged to fall back on more costly hand or semi-automatic operations.

The related services or operations already referred to—such as laboratory facilities, up-to-date methods of compounding, mixing or blending—can be performed at a lower cost than the customer would encounter in his own plant. These advantages accrue for the small business that has a comparatively limited volume of production, for the newly established company that hasn't yet found its market, or for the large business that is introducing a new product or is expanding its line. For all of these, the contract packager is in a position to offer expert production planning and a familiarity with many types of packages and packaging operations.

There are added advantages. By combining the requirements of his clients for similar types of packages, the contract packager can frequently obtain quantity prices on the package materials, even though each individual order may be only nominal in size. Furthermore, the contract packager can save valuable factory

space for his clients, which is an important item in total operating costs. He can also save his principal a certain amount of overhead expense by handling details of inventory records, shipping papers and in some instances insurance charges on both raw materials and finished goods which the contract packager carries in his plant.

One of the best jobs performed by the contract packager is in decentralized production. Several concerns have plants in various parts of the country and can save many thousands of dollars in shipping costs for their customers, as well as aid in overcoming that bugbear of marketing—spotty distribution.

In short, the contract packager in effect can serve as a branch plant in performing all of the packaging operations for his customer, as explicitly directed by the customer, at greater convenience and lower cost than could be performed by the principal himself.

From the point of view of the national economy, and regarded collectively, contract packagers represent an asset of great potential value. If and when war should come again, these plants will all be pressed into service to take care of the peak load of package production that is an inevitable accompaniment of military operations. They have a reservoir of experience that would require no lengthy training period, but would be promptly available. Specialized facilities and equipment could easily be card indexed, making it possible to assign particular tasks with the assurance of responsible performance.



"TO OPEN, PULL STRING," is good news for housewives who frequently destroyed protective paper containers trying to open them the old way. Recipes on bottom disk of each package are added merchandising feature; copy is changed frequently.

String-opener for Pabst-ett

A MODERN DEVICE ELIMINATES INCONVENIENCES OF THE OLD PACKAGE,

WHILE RETAINING RECOGNITION, ECONOMY AND TAMPERPROOFNESS

Development of a new, easy-to-open, tamperproof paper container for Pabst-ett cheddar cheese food, designed to overcome certain disadvantages of the earlier 6½-oz. package, has been announced by Phenix Pabst-ett Co., Chicago. Simultaneously, the company has disclosed that its new 2-lb. economy loaf package for this product, introduced in test markets during 1948, is now being distributed nationally.

In surface design, the new 6½-oz. package looks exactly like its predecessor, inasmuch as the paper material and familiar and distinctive round shape so long identified with the product have been retained. Construction-wise, however, there are important differences between the packages.

The old Pabst-ett package consisted of a single collar and top and bottom disks. The collar, heavily beaded on both edges to provide the "bullet end" package seal, was perforated above the bottom bead. To open the package, the housewife was required to cut or tear off this bottom bead. But since it was difficult to get the proper perforation score on the weight of stock required for the 6½-oz. package, the package was difficult to open as intended. In many instances the container was destroyed in opening, leaving the housewife no convenient means of storing unused portions of the

cheese food or, at best, no effective means of resealing the package. The container did, however, have the important advantages of being both economical and tamperproof.

In order to overcome the shortcomings of this package while retaining the advantages, the Phenix Pabst-ett Co. experimented with a telescopic container. This consisted of a labeled top disk and collar, curled in, and a separate bottom collar and disk similarly shaped. This package proved easy to open and had the desired reclosure feature—but it had other failings: it was not tamperproof, could fall apart easily in handling and was uneconomical.

Such is the background out of which the new package, now in national distribution, was evolved. Like the original container, it consists of a top and bottom disk and a single collar rolled on both edges. But now the collar is cut in two pieces, with top and bottom segments held together by the wrap-around label. A string is sealed in the cut beneath the label and the container is conveniently opened simply by pulling the string and tearing the label.

Unlike the early container, the new version is not destroyed in opening, but is preserved as a convenient, reclosable receptacle for unused Pabst-ett portions. It is



OLD AND NEW ways of opening compared. Previously the bottom head had to be cut and ripped off, with the typical result shown. Now the body is in two parts, held together by paper label with string beneath; when string perforates label, the container opens and recloses neatly.

ECONOMY PACKAGE for 2-lb. Pabst-ett loaf is being promoted nationally in conjunction with the small round package, which contains a coupon that is good for 10 cents toward the 2-lb. size.



also tamperproof and does not fall apart in handling. Like the original package, it is economical as well. An inner wrapper of wax-treated cellophane greatly increases the storage life of the product.

A merchandising feature of the new Pabst-ett package is the use of service and recipe copy on the bottom disk. This copy provides two complete Pabst-ett recipes with each package. A series of four different recipe units are provided for the regular Pabst-ett and three recipe units for the pimento Pabst-ett package, with copy on these units changed every six months.

The 2-lb. economy package, introduced last year in Detroit, Pittsburgh, Kansas City and on the West Coast, is a three-piece-style process cheese carton with inner wrap of wax-treated cellophane. Prominently displayed on the top panel of the carton is a reproduction of the regular 6 $\frac{1}{2}$ -oz. package, with the arrowed notation, "Same as in the familiar round package," directly above it.

To promote the introduction of the new 2-lb. loaf, redeemable coupons worth 10 cents when applied on the purchase of the large economy package are being inserted in the regular 6 $\frac{1}{2}$ -oz. packages. Special store banners, price cards and mat ads were also prepared to help merchandise the 2-lb. package, which is featured this year in Phenix Pabst-ett Co.'s national advertising program.

CREDITS: New 6 $\frac{1}{2}$ -oz. string-opening can, Sefton Fibre Can Co., St. Louis, Mo. Two-lb. loaf carton, Ohio Boxboard Co., Rittman, Ohio. Parakote (wax-treated cellophane) wrappers, Marathon Corp., Menasha, Wis.



TWO-PIECE CARTON with rigid inner collar is the container for the 2-lb. loaf. The carton is overwrapped in printed, wax-treated cellophane with score lines as a guide to the consumer in cutting the handy $\frac{1}{4}$ -lb. portions.

VISITORS CAN VIEW Merck's streptomycin packaging operation through windows of the overhead gallery without contaminating the sterile area.



STREPTOMYCIN

NEW MAGIC DRUG HAS A SHOWPLACE

PACKAGING PLANT AT MERCK, WHERE STERILE HANDLING NEARS PERFECTION

IN the exciting story of one of the wonder drugs of our day—streptomycin—packaging is a vital chapter. Nowhere have more elaborate precautions been taken to guard this drug against contamination than at Merck & Co., Inc., which was the first chemical company to achieve large scale, commercial production of streptomycin in 1946. The antibiotic is manufactured under strict aseptic conditions in specially designed new buildings both in Elkton, Va., and at Merck's Rahway, N. J., plant where final finishing and packaging is accomplished under conditions of sterility comparable to those maintained in a surgical operating room.

There are, of course, many sterile packaging rooms in the drug industry, but Merck's is one of the newest and best equipped and therefore particularly worthy of study.

Extreme precautions have been established because streptomycin, like penicillin, cannot be packaged and then subjected to sterilization without destroying its potency. The scope of these precautions extends to workers, packaging materials and equipment, and even the building itself. The aseptic cubicles where the drug is weighed and filled into bottles, the final processing equipment, the bottle washing machines—all such equipment in the workrooms where packaging materials come in direct contact with the drug and where the drug is handled prior to being sealed in the bottles—are made of stainless steel and sterilized by some method at least every 24 hrs. if not oftener. Highly trained personnel scrub up and change to freshly laundered uni-

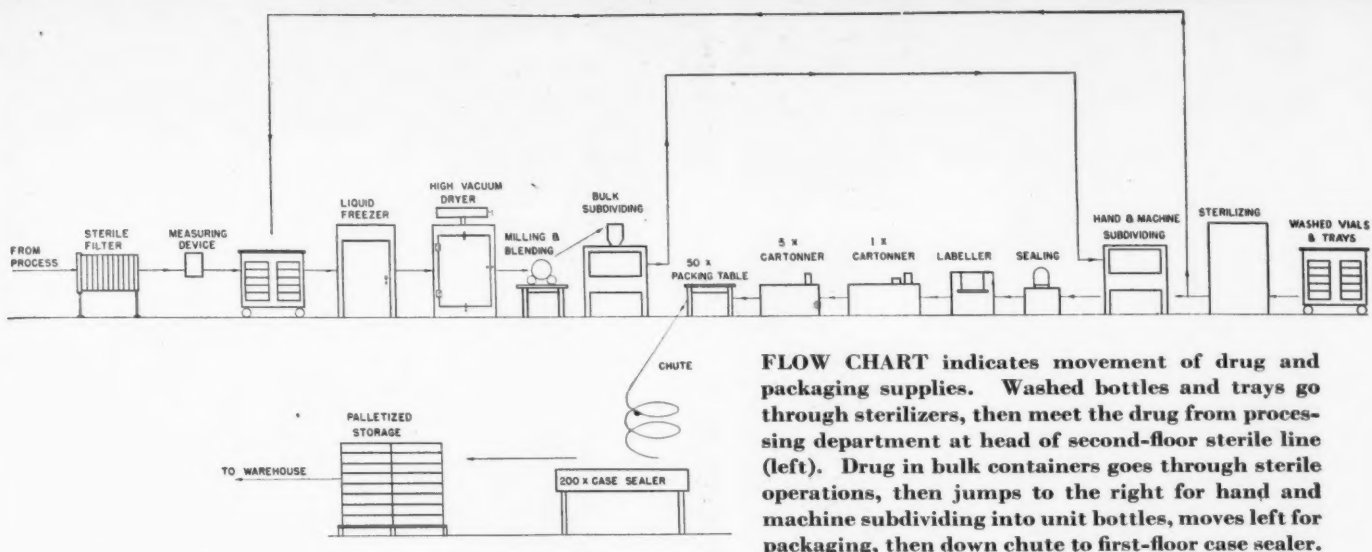
forms before entering the sterile workrooms for the day.

The final operations (bacterial filtration, freeze-drying by high-vacuum sublimation, milling, blending, weighing into bottles and packaging) are performed at Rahway in a remarkable building that houses the Sterile Techniques Department. Although the building was completed in 1946, a new wing was constructed in 1948 to accommodate part of the additional packaging equipment installed to keep up with production, which has increased many fold from the original 200,000 grams per month in the past two years.

The building is divided into "sterile" and "non-sterile" areas. Sterility is accomplished through (1) building design and construction materials; (2) use of germicidal aerosols and ultra-violet lamps; (3) steam or dry heat sterilization and chemical disinfection; (4) control of operators entering the sterile area and (5) rigorous cleaning procedures.

Modern building materials which would provide easily maintainable sterile surfaces were carefully selected. The floors are terrazzo—free from cracks which would provide lodging places for bacteria. The walls are tile; doors and frames are stainless steel and windows are the fitted, double-glaze type.

All air entering the sterile area first passes through an electrostatic dust collector in the air-conditioning unit and, after dust particles are precipitated out, minute quantities of triethylene glycol are continuously vaporized into the air stream. In areas where streptomycin is openly exposed, or where there are openings between



FLOW CHART indicates movement of drug and packaging supplies. Washed bottles and trays go through sterilizers, then meet the drug from processing department at head of second-floor sterile line (left). Drug in bulk containers goes through sterile operations, then jumps to the right for hand and machine subdividing into unit bottles, moves left for packaging, then down chute to first-floor case sealer.

the sterile and non-sterile areas, ultra-violet lamps are used.

All materials entering the sterile area pass through steam autoclaves or other sterilization. Large pieces, after being disinfected, pass through the locks leading to the sterile area. In the locks the doors are "curtained" by ultra-violet light. The two doors in the lock are never allowed open at the same time, to prevent any draft from carrying bacteria into the area. Water used in the processing and washing equipment is made sterile and pyrogen-free by distillation and other processes.

The building has three stories. On the first floor are the administrative offices and double sets of locker rooms for employees, plus the area where the bottle washing equipment is located.

As the employees enter the first locker room they remove their street clothing including shoes and, after

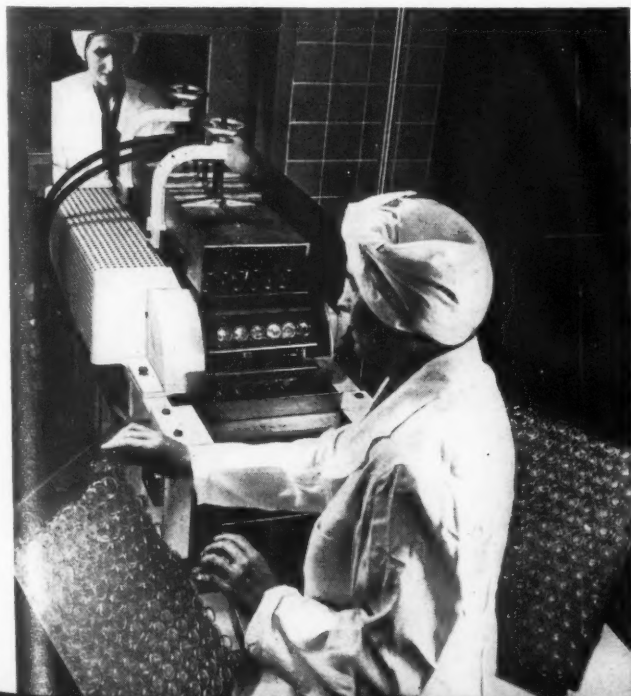
washing, don freshly laundered uniforms, head coverings and shoes in the second locker room. Before entering the stairwell leading to the second floor where the packaging is done, workers wash their hands again to minimize the danger of contact contamination of equipment.

Only authorized personnel can enter the workrooms. Special provision has been made for visitors to the building who can watch the packaging operations as well as the final processing steps from an overhead corridor which is fitted with large plate glass windows on both sides looking down on the packaging floor.

Bottle washing

One-gram units of the powdered streptomycin are packaged in small, round glass bottles similar to those used for dry penicillin (MODERN PACKAGING, June, 1944, p. 79). The bottles are stoppered with rubber

BOTTLES WASHED automatically with pyrogen-free water then move in trays into the sterilizing ovens.



BULK BOTTLES of freshly milled streptomycin are check-weighed in the first of a series of sterile-sealed cubicles.





WEIGHING DRUG and filling 1-gm. quantities into sterile bottles is delicate hand operation, entirely performed in sterile cubicles like these. Each cubicle has sterile drawer lock—a Merck development—to introduce and withdraw supplies.



CUBICLE CLOSE-UP shows how the streptomycin powder is handled, weighed, filled through a funnel into bottle, the bottle rubber-capped and then returned to tray. Interior is flooded with ultra-violet and the air maintained at a low relative humidity. The cubicle is re-purified after each lot is packaged.

disks and have a final sealing cap of aluminum over the stoppers. All three component parts of this package contacting the product must of course be sterilized. The bottles are automatically washed and rinsed with pyrogen-free water using needle-point sprays. As they come off the automatic washer an operator places them bottom up in stainless steel trays which hold approximately a gross of bottles. These trays are then loaded onto small rack trucks which are wheeled into sterilizing ovens. Bulk glass containers used for intermediary storage, ranging in size from one-half to two liters, are similarly sterilized. The rubber stoppers and caps, together with the scoops, funnels, etc., used in weighing and filling the bottles, are washed and steam sterilized in autoclaves. The larger equipment is washed down with phenol solutions at the end of each day's work as part of the department's general housekeeping.

Weighing and filling

All subdividing—Merck's term for the weighing and filling steps in packaging streptomycin and penicillin—is done gravimetrically inside sealed cubicles, using delicate analytical balances. The final processing steps—preparing the antibiotics in their dry forms for milling and blending the crystalline products—are also done inside cubicles.

Built to Merck's specifications, the 40-odd streamlined stainless steel cubicles are vastly improved over the first ones used a number of years ago in packaging arsenical preparations. As both streptomycin and penicillin are highly hygroscopic, the cubicles are completely air-conditioned, with the filtered air kept at a relative humidity even lower than it is in the over-all sterile area. Another improvement is the design of

sterile drawer locks through which all the operators' packaging materials and working supplies are introduced into or taken out of the cabinet. Each new lot of streptomycin is introduced and each finished lot withdrawn from the cubicle through this drawer lock—located on the left side of the cubicle below the operator's arm.

The interior of the cubicle is flooded with ultra-violet light so shielded that there is no glare against the broad front window. Below the window are the usual two openings through which the operator inserts her hands. While the operator handling the drugs wears sterilized surgical rubber gloves for aseptic reasons, the gloves also protect her hands from over-exposure to the drug. Attached to the openings by means of adhesive tape are sterilized Vinylite plastic sleevelets, to which the operators' gloves are permanently attached. These sleevelets are another improvement devised by the company; they allow the operator greater freedom of motion inside the cubicle, thereby aiding her accuracy in weighing and filling the bottles.

Each operator services her own cubicle, since the company has found that this procedure encourages her personal feeling of responsibility and also gives her a "break" from the delicate work. In addition, specified rest periods are given during each shift.

Controls

To help maintain the fine weight tolerance, the operators are paid on an incentive plan which is based on the accuracy of work as well as the amount of production. If her subdividing "goes out of control" as shown by statistical control methods, she is warned and reminded that she herself can weigh within the control

limits as shown by her past records. Should the deviation continue, the operator is very likely to go "out of tolerance" and have some work rejected. This results in lowered production and lower premium earnings.

The control sections in the Sterile Techniques Department include not only statistical control technicians, who constantly check random samples from each lot for weight deviations, but also process control technicians, who check the samples for purity, and bacteriological control technicians, who check the bacterial counts and are responsible for the housekeeping.

Labeling and cartoning

After the control technicians have taken samples from the trays of filled and stoppered streptomycin or penicillin bottles, the bottles are put on a conveyor to carry them from the sterile area into the new wing of the building where the aluminum sealing caps are automatically applied by capping machines. Two lines have been set up with the latest automatic labeling and cartoning equipment. Traveling on a straight-line conveyor, the bottles are automatically labeled and inserted in folding cartons.

Bottles traveling down the packaging lines are subjected to 100% inspection. Each line has a total of seven inspectors who check the bottles as they go through. One inspector, for example, watches the bottles as they come through the labeling machine while another checks them before they enter the cartoning machine, each using a mirror so that she can see the back of the bottle as well as the front as it passes.

Merck prints its own labels, giving lot number and expiration date for each lot as it comes from the production department. The cartoning machines have mechanisms which fold and stuff inserts with the bottles as they are automatically slipped into the cartons. As the cartons come off the end of the line they are packed into shipping containers which are shunted to the shipping room downstairs and automatically sealed.

All lots of both streptomycin and penicillin are held in "quarantine" in Merck's warehouse until samples have been tested, assayed and passed by U. S. Food & Drug Administration inspectors.

Training program

Although the work in the Sterile Techniques Department is exacting, Merck officials say their employees regard it as one of the most desirable places in which to work. A strong spirit of teamwork has been developed by the departmental personnel, which now numbers about 450. The reasons for the precautions in the workrooms are carefully explained to new employees during a one-week training period, using a 20-min. film and lectures. Applicants for jobs in the department are carefully screened; those considered for subdividing work are given dexterity tests. During the training period these cubicle operators-to-be practice in cubicles under simulated workroom conditions.

In December, 1947, Merck & Co., Inc., was awarded the *Chemical Engineering* achievement plaque for its

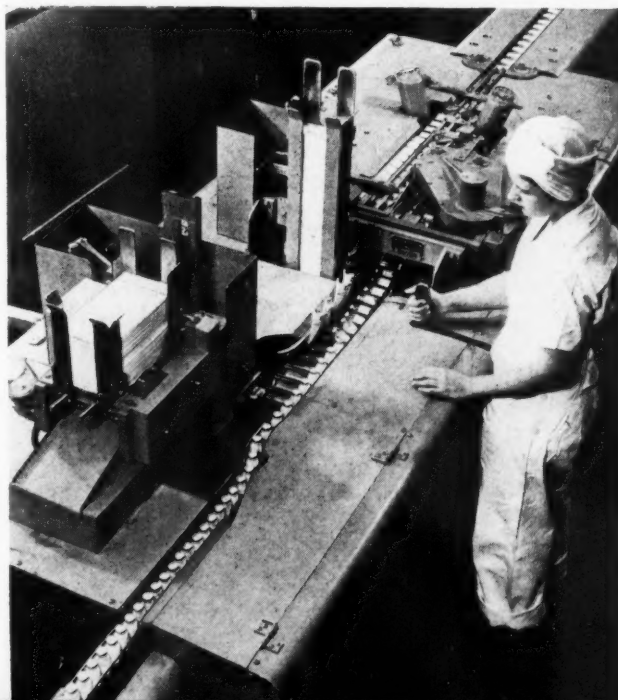
work in developing and producing streptomycin. In this connection it was pointed out that by virtue of its techniques both in packaging and in production, the price of the wonder drug has dropped steadily from its original \$25 per gram to the present price of under \$1.75.

CREDITS: Bottles, Owens-Illinois Glass Co., Toledo, Ohio, and T. C. Wheaton Co., New York. Rubber stoppers, The West Co., Inc., Phoenixville, Pa., and Plastic Assembled Products Corp., Elkton, Md. Caps, Aluminum Seal Co., Richmond, Ind., and The West Co., Inc. Cartons, Lord Baltimore Press, Baltimore, Md., Trenton Folding Box Co., Trenton, N. J., and Wilkala Folding Box Co., Kearny, N. J. Washers, Modern Machine & Tool Co., Plainfield, N. J. Cappers, Aluminum Seal Co. and The West Co., Inc. Labelers, New Jersey Machine Corp., Hoboken, N. J. Cartoning machines, R. A. Jones & Co., Inc., Cincinnati, Ohio. Case sealer, J. L. Ferguson Co., Joliet, Ill. Conveyors, Lamson Corp., Syracuse, N. Y.



INSPECTION OF BOTTLES after label and aluminum sealing cap have been applied is aided by mirror. Each of the lines has seven inspectors.

CARTONING MACHINE also folds and stuffs inserts. Sealed cartons are packed by hand into shipping containers before leaving sterile area.





On this month's cover . . .

Hinds Honey & Almond Fragrance cream

NOMINATED FOR PACKAGING'S

HALL OF FAME BECAUSE:

- It was the first product in its field to recognize the potentialities of packaging
- It was the father of a \$32,000,000 industry
- Alert promotion has kept it the world's most famous hand lotion
- Its package today is as outstanding as the first one 74 years ago



TRANSITION from Hinds to Lehn & Fink ownership was bridged at first merely by adding new name and address (right). Hinds bottle (left) is shown removed from half-carton, used 57 years.

Out of the back room of a tiny drug store tucked beneath the old Preble House hotel in Portland, Me., back in 1875 came the idea that has grown into one of America's outstanding package success stories.

Aurelius S. Hinds, druggist, in response to a demand understandably created by Portland's long and blustery winters, had compounded a white, creamy liquid—redolent of honey and almonds—that was remarkably soothing to chapped hands and faces. He put it up in small prescription jars, sold some to the neighboring barber shop, more to his own customers who in increasing numbers came in to ask for it.

Aurelius S. Hinds in 1875—a day which, as consumer packaging goes, is almost pre-historic—had the vision to see that if this popular product could be given a good brand name and trademark, placed in a convenient and distinctive package, vigorously promoted and made available in any drug store in the land, he might some day number his customers in the millions.

Styles have changed, but the basic principles of success for a packaged product remain the same as those Druggist Hinds evolved three-quarters of a century ago. The name "Hinds" today is known not only in every home in America, but in every civilized country on the globe. It was the first branded, nationally merchandised hand lotion. It is today, and always has been, representative of the best of packaging in the \$680,000,000 toiletries field.

It is for these reasons that Hinds Honey & Almond Cream is the subject of this month's study—as a package worthy of inclusion in packaging's all-time Hall of Fame.

Nobody knows exactly how many millions of packages of Hinds Honey & Almond Cream have been produced all told, nor how many millions they piled up

JULY '26

MARCH '27

JULY '27

JAN. '28

SEPT. '28

APRIL '29



EVOLUTION TO A MODERN LABEL was made in the six steps illustrated here, which were taken over a period of three years. Note how the portrait oval became gradually smaller and less prominent, while the larger label oval was introduced and made the dominant feature. The typography was progressively simplified and strengthened. The single step in July, 1947, was to change the color of the oval from brown to dark green for better contrast against pink coloring.

for their originator, but when the Hinds business was sold to Lehn & Fink Products Corp. in 1925 it was rumored locally that \$6,000,000 changed hands. Since then the packages have poured in a never-ending stream from four lines in Lehn & Fink's main plant at Bloomfield, N. J., and from other lines in branch plants here and in a dozen foreign countries. Hinds Honey & Almond Cream has for 24 years been a mainstay of the Lehn & Fink line, which includes such other famous products as Lysol brand disinfectant, Pebeco tooth paste and the Dorothy Gray and Tussy cosmetics.

The story of Hinds Honey & Almond Cream thus splits into two chapters. The methods by which Mr. Hinds established his packaged product and the methods by which Lehn & Fink has carried on and expanded its sale are in sharp contrast, although apparently equally effective.

Mr. Hinds, for example, was a fanatic believer in direct-mail sampling promotion and was reputed never to have employed a salesman or engaged in any nationwide advertising campaigns. Lehn & Fink, on the other hand, has poured an estimated \$15,000,000 into advertising since it took over, has been a consistent user of magazine and newspaper space and has pioneered some big-name radio shows in its support.

Beauty Fashion figures that, from those first few bottles of Hinds' cream, the business of hand lotions has built up to \$32,000,000 a year at retail. Surveys indicate that 90% of women and 63% of men use some hand preparation. In recent years, Lehn & Fink has seemed content to hold its ground in this expanding market and, giving up expensive radio productions in favor of numerous "spots," has surrendered first place in sales to a competitor fortunate enough to have had as its star salesman for many years a certain radio

commentator whose initials are W. W. But, in a field of a dozen competitive products, approximately one out of every five bottles of hand lotion today is Hinds.

The Portland beginnings

Hinds Honey & Almond Cream was born, as a packaged product, that day in 1875 when young Aurelius bought a quantity of ordinary extract bottles and ordered what seemed like an ample supply of 500 labels. Within a year, the manufacturing end of the business had grown to such an extent that he was forced to seek larger quarters in a drug store on Brackett St. This was the first of a rapid succession of expansion moves in



NOBODY knows now just how this glass-stoppered bottle with its green-plush, gold-stamped carton was used, but it was probably a demonstration bottle for drug counters. Label design is one of Hinds' earliest. Note booklet of testimonials attached to the back of carton.

1935

1933

1939



MODERN ERA was introduced with the bottle in center, used until 1947. This marked a label change to red and black, and adoption of conventional carton, but at first a modernized green oval, with tiny portrait, was used on carton to insure recognition, as at left. Red "sticker" on 1935 carton was added to publicize formula improvement. In 1939 carton was changed to match design and color of bottle label.

AUG. '46

MARCH '47



which the retail drug business was soon abandoned entirely. Five years after he started, Hinds was doing an international business, with orders coming from as far away as Finland.

The "Laboratory" illustrated on our cover was the manufacturing plant from 1889 to 1900, located at Pine and Clark Sts. in Portland. It is reproduced from a steel-engraved letterhead on which Aurelius' son, Harry, wrote to him in 1901. By that time, the elder Hinds was prosperous enough to winter in Florida, while Harry continued the struggle to keep up with the ever-increasing orders.

"All told," wrote Harry to his father, "we have sold so far about 180 gross, over 20 gross ahead of the whole of last February, and here it is only the 20th. We are rushed here and cannot seem to get ahead. . ."

In 1900 the company occupied the modern brick factory on West St. which, with several expansions, housed the business for the next 25 years.

From the start, A. S. Hinds recognized the value of a distinctive package. In 1876 he designed and adopted the square-shaped bottle (with blown-in lettering on the back) which stood as a symbol for his product until 1933. He was dissatisfied with the plain printed labels common to that period and in 1878 he employed a Portland artist to draw up a design for an engraving, including the bees, the honeycomb and the almond which in all the early Hinds labels gave point to the brand name and formed a unique trademark. Finally, in 1880, Mr. Hinds himself designed (and later patented) the curious slip-on, open-top carton which was an identifying mark for more than half a century.

Mr. Hinds felt that the satiny, white appearance of his lotion was one of its strongest selling points. He wanted a carton for protection in shipment, but he left the upper, tapered portion of the square bottle open to view, in what must have been one of the earliest recognitions of the value of product visibility in selling.

At first, labels similar to the bottle labels were pasted

PRESENT DESIGN (right) was ready, after several trials, in 1943, but wartime rules prevented bottle's manufacture. Meanwhile the new coral-colored label and cap were worked out and, as an introductory measure, adapted to the old-style bottle in 1946. The use of cartons was dropped gradually from 1942 to 1946 and now all four sizes of Hinds are shipped without cartons.

on the paperboard half-cartons by Hinds' girls; later the label was printed directly on the carton. The overall background of the carton was a flesh shade, which Mr. Hinds felt helped to suggest the use of the products. After 1900, the labels were lithographed and boxes manufactured for Hinds by Forbes Lithograph Mfg. Co., Boston.

From time to time, through the years, the lettering was modified and the label design simplified, in line with the times. Some time after 1900, the face of a lovely girl with roses in her hair appeared on the carton in a baroque picture frame surrounded by almond blossoms. The original was an artist's model procured by a New York agency.

Thereafter, the Hinds labels remained substantially the same until after Lehn & Fink took over. Whatever changes in copy or typography were made, the bee, the honeycomb and the almond remained familiar elements of the design as long as the Hinds family controlled the package.

Mr. Hinds was extremely aware that the appeal of his product was primarily to women. He wanted it to be a beautiful package and a dainty, feminine package that fastidious women would be happy to display on their dressing tables. It is interesting to note that this is still the merchandising thinking behind the ultra-modern new bottle which Lehn & Fink is now using.

Most bottled products in the '80s and '90s—before threaded-metal caps became common—were sealed with ordinary cork stoppers. To Mr. Hinds, that wasn't adequate for a delicately perfumed, feminine toiletry. If he used a cork, he covered it with a thin sheet of kid leather which extended down over the lip of the bottle and, tightly compressed, helped to seal in the aromatics. For some time he used ground-glass stoppers in his large-sized bottles. For special purposes he indulged in super-deluxe packages such as the 1890 version, found in Lehn & Fink's museum of early bottles, which has a glass-stoppered bottle in a slip-on carton covered with green plush, with the label stamped in gold. It is hard to believe that this was a regular-production package; more likely it was a display and demonstration bottle for the druggist's counter.

The picture of the plush package, on p. 87, also shows the elaborate advertising and direction booklet which for many years was attached to the back of every Hinds carton. One of the first "inserts," the booklet described the uses and benefits of the lotion and contained a price list and extracts from testimonial letters.

The reason for all this attention to the package was the same that today impels painstaking design of a package for self-service selling: it had to be its own salesman.

Mr. Hinds depended almost entirely on direct-mail

sampling, using miniatures of his regular bottle and package. After the business was under way, he regularly employed from 50 to 60 girls who did nothing but wrap and address sample packages, using every mailing list that he could lay his hands on in those early days and later going through the complete library of telephone directories.

He did, at times, place some magazine advertising, and he kept dealers well supplied with display pieces and calendars.

Frederick Moeller, Lehn & Fink's export manager who was with Hinds prior to 1925, recalls Mr. Hinds' comment that explained his faith in direct-mail sampling: "Everybody," said Mr. Hinds, "opens the door to the postman."

Sampling was unusual in those days and women were delighted to receive a personal sample of the smooth, fragrant cream. They were advised to ask for the product at their druggist's. (The druggist, too, was bombarded with samples and price lists.) Soon the druggist's orders were pouring into Portland by mail and telegraph and more girls could be employed to send out more samples.

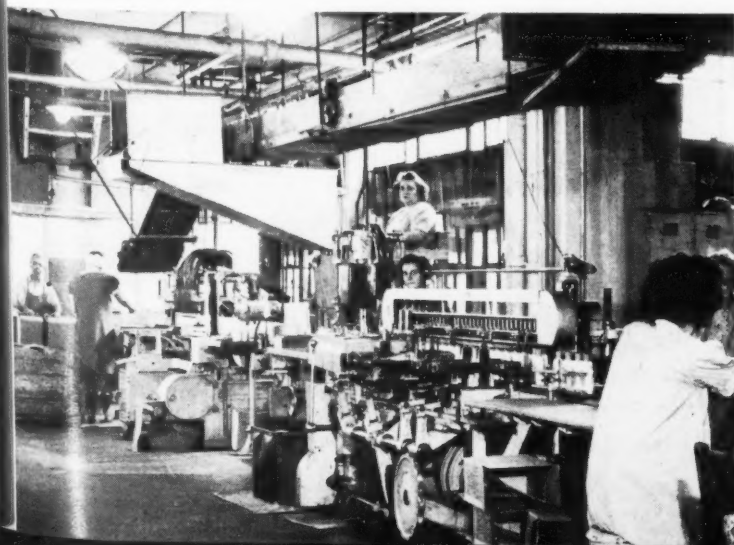
When advertising salesmen and agencies tried to corner Mr. Hinds, he would take from his pocket a picture of an apple and then from a drawer of his desk a real, red apple. "Which one do you want?" he would ask.

The Lehn & Fink era

Lehn & Fink Products Corp., which this year celebrates its 75th anniversary, is practically the same age as Hinds Honey & Almond Cream, but they didn't get together until 1925. At that time Lehn & Fink's President Edward Plaut was seeking to move from the drug wholesaling business into manufacturing operations and was looking about for an established, successful product which might be built even bigger by the application of modern advertising and selling methods. Mr. Hinds' unusual selling methods had been highly

ONE OF FOUR packaging lines for Hinds at Bloomfield plant, including straight-line vacuum filler, four-head rotary capper and duplex front-and-back labeler. Because of tapered shape of polystyrene caps, they are presently fed to capper by hand. PHOTO COURTESY PNEUMATIC SCALE CORP.

AT END OF LINE, bottles are returned to partitioned corrugated cases in which they are received from glass plant. Partitions have been found adequate for protection without individual bottle cartons, which would rob the bottles of their unusually effective display value.





DEALER AIDS have always been an important part of Lehn & Fink merchandising. Unusual and very effective is this fibreboard counter display in which dealers are invited to display competitive brands of hand lotions along with Hinds, reserving only four places for Hinds.

successful in their day, but it was time for a change.

The deal for Hinds' formula, equipment, name and good will was concluded late in 1925. Early in 1926 the entire operation was transferred to a new and bigger plant in Bloomfield, N. J., and set up as the A. S. Hinds Co. Division of Lehn & Fink. Extreme care was taken to reconstruct every element of the process exactly as it had been in Portland.

Mr. Plaut and his associates felt that the Hinds package of 1925 (see p. 86) was far behind the times, but they also had great respect for the consumer's faith in the product identified by this package and they decided to move cautiously on package changes. The only immediate change in 1926 was to insert the Lehn & Fink name and address under the Hinds name on the labels.

Mr. Plaut then retained the late Arthur Allen, a leading package designer at the time, who—on the advice of the company's attorneys and advertising agency—worked out a series of eight gradual steps by which the bottle and carton labels could be modernized, while sticking to the same type of carton, bottle and cap (by then an aluminum crew cap) which Hinds had been using. Later these change steps were reduced to six. The photographs on p. 87 show the transition.

The first step, in July, 1926, was a bold one: the bees,

the honeycomb and the almond were dropped after 48 years. The ornate frame and the almond blossoms were removed from the portrait of the smiling, fair-skinned artist's model, typography was re-arranged, simplified and strengthened, and unnecessary borders and rules were eliminated. The original flesh-and-brown colors of the Hinds label were retained.

In March, 1927, a single bold, brown line was drawn as an oval about the front panel portrait and copy to form a target for the eye. In July, 1927, the color of the oval was changed to green—working toward the greater color contrast which was part of the designer's strategy. In January, 1928, the lettering of the brand name was enlarged and the lettering "For the face, hands, skin and complexion" dropped.

In September, 1928, the white borders of the carton panels, easy to soil, were omitted, the copy within the oval was reduced to the brand name and the registration notice, and the oval was reduced in size and made a stylized, rippling, triple line. In April, 1929, the final step in this program was taken by printing the interior of the oval in dark green, with lettering in reverse white.

When the 1929 package is compared with the 1926 version, the contrast is striking, but the changes were effected so gradually that most regular users of the product were not even aware of them.

The package remained in substantially this same form until 1933, when Lehn & Fink felt safe in dropping the 57-year-old square bottle and sleeve carton and making a clean break to a graceful, modern bottle and an over-all, tuck-end folding carton. A special-mold bottle was designed to take a simple, vertical strip label printed in red and black and was topped off with a full-skirted, red plastic closure. Continuity with the old design was maintained, however, by transferring the old green oval—modernized and with the portrait reduced almost to the vanishing point—to the new carton temporarily. One of several improvements in formula was advertised in 1935 by adding to the copy on this carton the words "Improved, non-sticky" in a serrated red patch near the bottom of the front panel. Finally, in 1939, the carton design was changed to the same motif as the bottle label—black oval against a red vertical stripe—and the portrait disappeared forever from the package.

Mr. Plaut was satisfied with the shelf appeal of this package, but he shared with old Mr. Hinds the feeling that Hinds Honey & Almond Cream should have a feminine, dressing-table look about it—which the red-and-black label definitely did not have. He felt also that the rectangular bottle did not adequately bring out the soft, satiny texture of the cream.

He set his own art department to work, with instructions to develop a gracefully curved bottle, label and closure so beautiful that it would set Hinds apart from all competitors. With its curved shape, the bottle should present a safe and pleasing hand grip, it should be practical to handle on the automatic filling lines and it should be structurally sound to minimize breakage.

This was a large order and (Continued on page 160)



EXPERIMENTAL 18-stick package for three Wrigley chewing-gum flavors is similar to familiar 5-stick pack except for interior spot gluing which holds individual sleeves in the pack when sticks are withdrawn.

18-stick gum pack

WRIGLEY TESTS DEMAND FOR LARGE

15-CENT UNIT; INNER CONSTRUCTION MAKES NON-COLLAPSIBLE PACK

A new 18-stick package of chewing gum which retails at around 15 cents and embodies interesting construction features is currently being sales tested by the Wm. Wrigley Jr. Co., Chicago. Offered through retail stores, the package is produced in three flavors—Wrigley's Spearmint, Doublemint and Juicy Fruit. Originally launched in Baltimore, the test sales campaign for the new 18-stick unit may later be extended to other cities.

Object of the test, according to the company, is to find out whether, in addition to the standard five-stick unit, consumers are interested in having available a package unit of larger size.

The majority of retail stores handling the 18-stick unit are selling the package at 15 cents, although some retail outlets have been charging a little more and others a little less.

In color and surface design, the 18-stick packages are similar to their familiar 5-cent counterparts. Measuring approximately 3 by 1 $\frac{3}{4}$ by $\frac{7}{8}$ in.—slightly smaller than a pack of cigarettes—they are of a convenient size to slip easily into the pocket or handbag. An upturned tab at one end of the wrapper makes it a simple matter to remove the end of the package by means of the con-

ventional tear-tape arrangement. The outer wrapper, folded and sealed at both ends, consists of a lamination of aluminum foil, paper and cellophane, similar to the outer wrapper which has long been used on the standard 5-cent package.

Before being enclosed in the outer wrapper, the 18 sticks of gum, in their individual foil wraps and printed sleeves, are secure together by means of an encircling belt of paper 1 $\frac{1}{2}$ in. wide, which is spot-sealed to the edges of the individual stick sleeves, causing the sleeve to remain in the package when the foil-wrapped individual stick is withdrawn. Due to this construction detail, the package does not tend to collapse and the remaining sticks will not readily drop out after the outer wrapper has been opened.

As sticks are taken from the package, the empty printed sleeves provide a cushioning effect and hold the remaining pieces of gum firmly until they are deliberately withdrawn from the package.

The experimental 18-stick package was developed by Wrigley and is handled on special equipment designed and built by the company. Wrigley has not disclosed its future plans for merchandising the new package unit.



DESIGN

New resealable paint container



The Sherwin-Williams Co. has introduced its Kem-Glo, a new luster-finish paint, in a metal can with a patented resealable closure designed for consumer convenience. In place of the friction groove seal found on conventional paint cans, the new package has a flat gripper-type lid with a ring cap that fits tightly on a short neck above the can body. The closure is an adaptation of one developed some time ago for small-mouth containers which consisted of a stamped metal shell within which are set a series of clips. The ring cap is removed by prying and finger-tip pressure on the lid breaks the gripper seal so that the lid lifts off. The package is resealed by merely replacing first the lid and then the ring cap. The short neck simplifies pouring paint from the can and makes it easier to control the amount of paint on the brush.

CREDIT: "Circle Seal" closure made by Sherwin-Williams under franchise agreement with Magneseal Co., Chicago.

Polyethylene for rose bushes

Polyethylene tubing used as the packaging for Seal-Kraft rose bushes marketed by Wilson's Nurseries of Manchester, Conn., is said to mark the first application of plastic packaging in nursery products. Polyethylene was selected for the wrap because of its low rate of moisture permeability, required to prevent loss of moisture by the bushes until planting. The packaging is constructed of two lengths of polyethylene tubing to form a double wrap.

Ordinarily labels are on the outside of such packages or a tag is wired to the plant. Here a four-color paper label inserted between the two walls of tubing, protected against moisture, dirt and handling, is visible through the film. The wrap is heat sealed at the base on equipment designed especially by the company. Top of the wrap is securely tied with cotton twine and then dipped in wax.

CREDITS- Wrap, Plaxpak Layflat tubing, Plax Corp., Hartford, Conn. Label, J. Horace McFarland Co., Harrisburg, Pa.



HISTORIES

Multiple-unit wine seller and sampler

A three-fold purpose is served by this folding display carton adopted by the House of Old Molineaux, Inc., for a half dozen popular-priced Three Monks "Nip" or miniature bottles of wine. First, it enables the package store to make a multiple-unit sale. Second, it encourages the consumer to use the Nips miniatures at mealtime, thus taking them out of the novelty class. Third, since a variety of four or five types of wines are packed in each container, unless otherwise specified by the distributor, it encourages the consumer to sample several types and possibly learn about wines never before tasted. By broadening the consumer's knowledge, the purchase of wines in the miniature Nips, as well as in the larger-sized bottles, is encouraged.

CREDITS: Carton, National Folding Box Co., Inc., New Haven, Conn. Bottles, Owens-Illinois Glass Co., Toledo, Ohio. Labels, Consolidated Lithograph Co., Brooklyn. Closures, Celon Co., Madison, Wis.



Golf set drive

Sport Products, Inc., report that their golf club sets arrive in much better condition since these newly designed two-piece folding cartons have been in use. In addition, the triangular effect at the top gives the box a distinctive design for display appeal. Constructed of die-cut and scored fibreboard, they present an interesting example of large-sized folding cartons. The high percentage of damage experienced with the old containers was due to the inefficient bridge support. These newly designed boxes feature a notched bridge support fitted with inner corrugated material that serves as a re-enforcer. For the set of eight irons (left), only one support is necessary; placed at an angle, it conforms to the triangular inner design. Two bridge supports hold in place the set of four heavier wood clubs. Paste-on labels feature the MacGregor trade name both inside and on the cover.

CREDITS: Box, C. W. Zumbiel Co., Norwood, Ohio. Labels, Drury Printing Co., Dayton, Ohio.

New carton gravure

SHEET-FED PROCESS IS PRACTICAL FOR SHORT RUNS ON FOLDING CARTONS;
PRODUCES REMARKABLE FULL-COLOR REALISM WITH HALFTONE SCREENS
FINER THAN EVER BEFORE PRINTED ON BOXBOARD. By J. D. Malcolmson*

A whole new field of artistic packaging has just been opened up to users of folding cartons. Printing perfection that was formerly associated only with fine papers and magazine advertising is now possible on standard folding carton stock. Packages that have required outer paper wraps to carry the art copy can now have this effect right on the carton itself, at low cost.

This striking new development results from technical achievements adapting the Intaprint process to printing on boxboard. It required the building of a new type of press and the development of new techniques in fine-screen plate making. The first two of the new presses are now operating at the Piermont, N. Y., plant of the Robert Gair Co., Inc. These are the first presses ever to print folding cartons in this country by the sheet-fed gravure method.

Attached to the pages of this article is an actual sample of one of the first press runs on folding boxboard. It gives an indication of the possibilities of this method for the realistic reproduction of art work. In examining this sample, notice particularly the brilliance, depth and gradation of color, giving almost the appearance of a hand-painted carton. Yet the floral decoration was achieved with three colors; black is used only in the

* Director, Products Development Dept., Robert Gair Co., Inc., New York.

NEW PRESS was specially developed to handle sheet-fed carton blanks. There is virtually no make-ready time, no setting of rollers, no ink-drying problem. In contrast to web-fed gravure, quick job changes can be made.

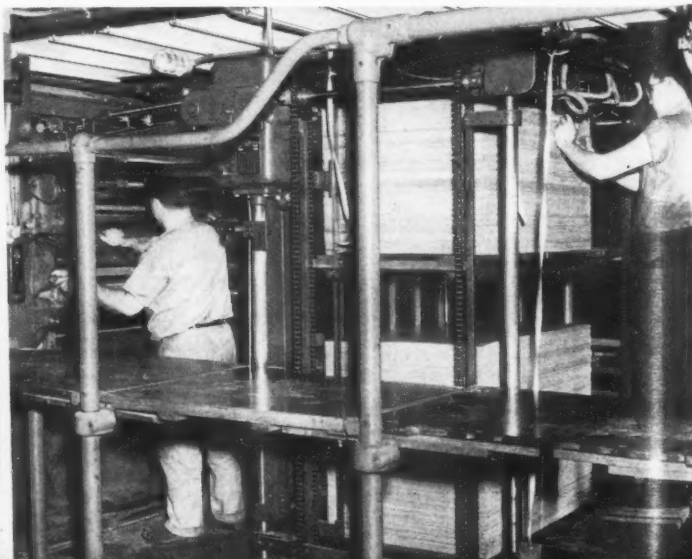
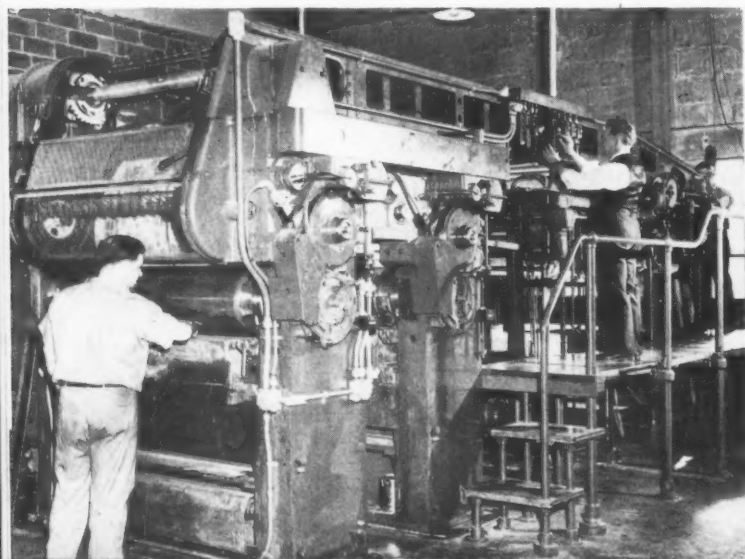
lettering. Pictorial representations of pies, cakes and prepared dishes can be made so realistic that shoppers will find it difficult to resist the temptation to buy. "Impulse buying" often leads to repeat business which in turn is the backbone of successful merchandising. Most impulse buying results from realistic pictorials and realism is almost a synonym for this new process of sheet-fed gravure. It is equally adaptable to the subtle tone values associated with pastel quality so often used in deluxe perfume cartons.

Gravure printing of folding cartons from a roll of board is not new; that process is usually known as roto-gravure. These web-fed machines are single-purpose units designed for long runs on one carton. They are not adaptable to changing from one run to another, as adjustments are more or less fixed for a particular job.

Very important to the users of folding cartons in relatively small lots is the fact that the new sheet-fed gravure press is specifically directed to their needs, making possible a quality of printing that previously was not possible—economically—in short runs.

The new sheet-fed process uses interchangeable printing plates that are prepared almost photographically, with little if any retouching. The method of making these plates permits the use of halftone screens much

BLANK FEEDER is continuously and automatically operated. When the top pile of sheets has been used up, the bottom pile takes its place. This machine is the first sheet-fed gravure press in this country for boxboard use.



ACTUAL SAMPLE of folding-carton stock printed by new sheet-fed gravure process. Brilliance, depth and gradation of 3-color floral design are achieved with halftone screens so fine that dots are almost imperceptible. ➤

finer than any ever used before on folding-carton stock. For example, the black word copy on the attached sample was made with a 250-line screen, but a powerful lens is needed to detect the presence of halftone dots.

Incidentally, this sample is ordinary 0.020 white patent-coated, manila-back board treated with clay on the paper machine by the Gaircote process. Clay coating, however, is not a prerequisite to this printing method, as sheet-fed gravure operates equally well on any good quality board.

The new process is actually a combination of the best qualities of photo-engraving and intaglio printing. It uses a thin, volatile ink which dries instantly and thus permits very high press speeds. This, together with the virtual elimination of register and make-ready problems, now offers to folding-carton users a combination of beauty and moderate cost which should aid in the coming battle for the consumer's dollar.

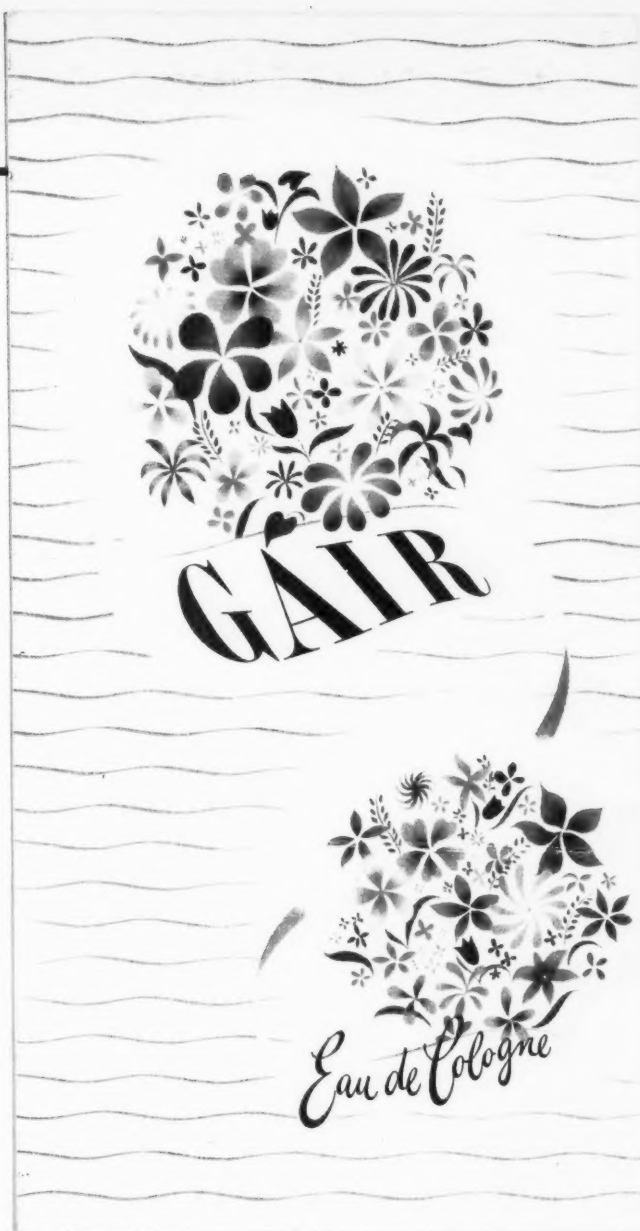
A close examination of these new gravure plates reveals complete "drop-outs" and well defined dot formation down to pin-point sizes, with the result that for the first time a combination of halftone dots and gravure softness has been achieved in what might be called an "inverted halftone" process. A "drop-out" is a surface completely free from halftone dots and is achieved without the expensive highlighting methods used in ordinary letterpress.

The use of a 250-line screen permits the printing of sharp type matter from halftone cups. The ragged edges found in some gravure copy are almost imperceptible here, due partly to the fine screen used and partly to the "flooding" action of some of the ink spilling over into the next cup impression. Up to now, with letterpress, 100- or 120-line screens have been considered the maximum for printing of folding cartons. With sheet-fed gravure, however, even the pictorial and color copy is printed with 150-line screens.

In spite of these fine screens, this sheet-fed gravure process works particularly well on boxboard, which is a coarse base as compared with fine papers. Perhaps this is because the relatively thick board offers a cushion for the heavy pressure used and also acts as a blotter for instantaneous, precise absorption of the very fluid ink.

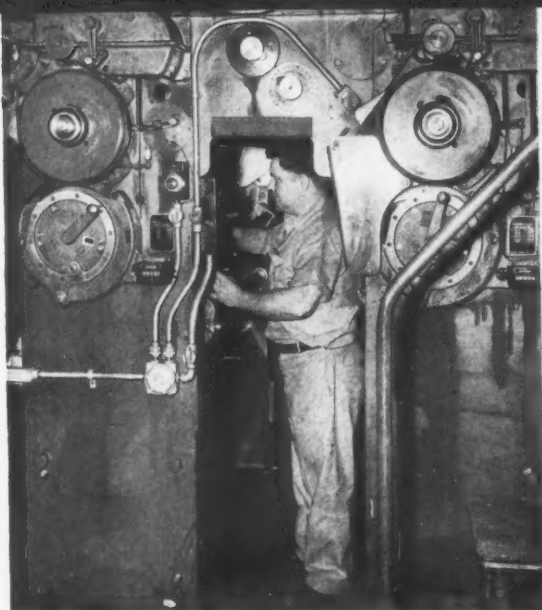
John Pabst, the dean of boxboard printers, likes to tell his students that there are three fundamental printing methods—elevated, surface and subway—referring, of course, to letterpress, lithography and gravure.

Intaglio, or gravure, comprises a number of processes, all of which use plates with minutely etched cups or cells which carry the ink and transfer it to the sheet by absorption. These processes are known by various names such as "carbon tissue," "gelatine transfer"

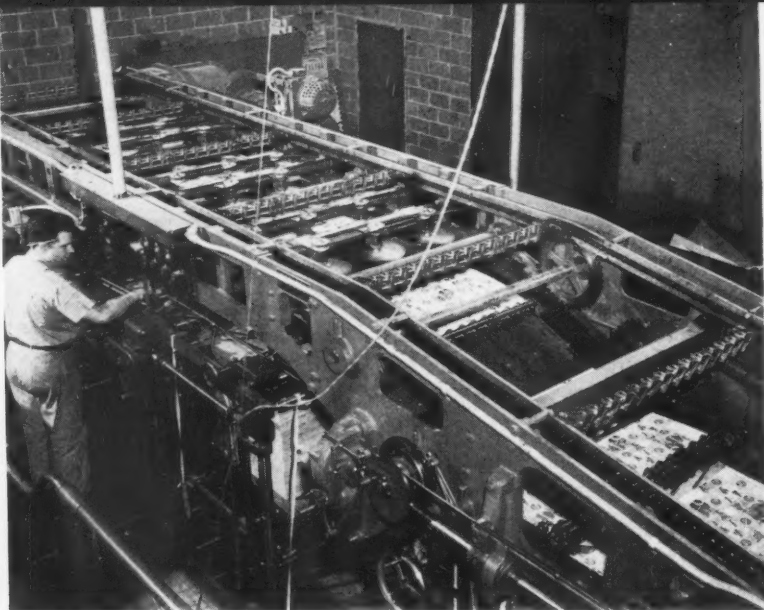


"Dultgen," "Henderson" and "Intaprint." The method now being described is the Intaprint, invented in 1935 by W. J. Wilkinson, a New York engraver and printer, and reduced to practice with the technical assistance of Halver T. Sorensen, adviser of the Gair Gravure Department. Commercial application of Intaprint was delayed by the war; previously it has been used only for printing on paper.

The advantages of all gravure printing are that after the plate is finished there is (1) practically no make-ready on the press; (2) no setting of the rollers and (3) no ink-drying problem as is the case with ordinary printing. The press can be run at very high speeds, yet the sheets come out bone dry due to the volatility of the ink used in the etched cups. However, most gravure plate making requires the intermediate use of a sheet of carbon tissue, which is a sheet of paper coated with sensitized gelatine. This intermediate step leads to a complicated etching process using several different



PRESSMAN ADJUSTS a doctor blade between first and second printing units. Doctor blade wipes superfluous ink off the plate cylinder.



TWENTY-SEVEN FANS speed drying as printed sheets travel back across the top of the press on a chain delivery, moving to right of picture, to delivery pile. A quick-drying, very fluid ink is used.

strengths of acid and dependent to a considerable extent on the experience and skill of the etcher, as well as on weather conditions, which have a varying effect on the gelatine. All these hazards have served to retard the use of gravure in many printing fields, for often the disadvantages have outweighed the advantages.

Practically all of these objections were swept away with the invention of Intaprint ("Inta" for intaglio, "print" for printing) which is based on the following operations: If the art is black and white, a continuous-tone negative is made, while if the art is in color, color separation negatives are made. If these continuous-tone negatives are of the correct density, when finished, they will carry all the details and tone gradations.

Next, halftone positives are made through a special screen. For multicolor work, all these positives are made at different screen angles and when finished they are photographically printed onto a sensitized flat sheet of copper 0.020 in. thick, in exact micrometrically measured locations. The inverted halftone dot formation is for the first time protected by a supporting plane of metal walls which carries the doctor blade without interfering with the depths of color or the correct gradation of tone values. This really is the basic concept of the invention.

Another innovation is the use of a flat plate, which reduces make-ready, insures accurate register and, finally, can be wrapped around the printing cylinder.

First, however, the engraver uses his "step and repeat" machine, which permits extreme accuracy in photographically printing the screened positives onto the copper sheet. The photo print is then "burned in" and the plate goes to the etching bath, where as many as 62,500 cups per square inch (250-line screen) are etched with acid.

Here we encounter the third new feature. In ordinary gravure, the plate is etched using a screened car-

bon tissue that has a gelatine sensitized coating, resulting in cups of varying depths but of the same surface area. In these processes, it is the depth of the cut that controls the color. However, in the Intaprint process, it is this combination of area and depth that produces the striking color fidelity in the final impression, as evidenced by our tipped-on sample.

Moreover, each depressed cup is surrounded by a sufficient shell of metal to provide a plane bearing surface for the doctor blade to wipe off the surplus ink without excessive wear on the plate, resulting in long plate life and a surprising number of perfect impressions. This etching method also produces a plate which can be rolled up, re-etched and burnished.

The printing press itself is relatively simple, consisting basically of an impression cylinder revolving in contact with the plate cylinder. This plate cylinder, in turn, is bathed with ink which fills the wells of the plate, the excess being scraped off by the flexible doctor blade. Boxboard passing between the plate and the impression cylinder absorbs the ink which remains and, since heavy pressure is required, little or no make-ready to get a uniform impression is needed. The ink fountain operates without pumps, pipes or motors.

In conclusion it may be said that this new process of printing folding cartons is a happy combination of the best characteristics of the three other processes: *Photo-engraving* has contributed the feature of accurate reproduction of originals through the medium of the halftone screen. From *offset* come the desirable steps in plate making which insure perfect accuracy of register by using the step and repeat machine. The *intaglio* method of printing has provided the ability to lay adequate deposits of ink at high press speeds.

The result has been to print the utilitarian folding carton with a brilliance and color fidelity formerly enjoyed only by the finest of magazine color pages.

Polyethylene 'soft' box

SINGER USES PACKAGING'S NEW PLASTIC IN A NEW WAY: SELF-HINGED

PARTS BOX IS AS INDESTRUCTIBLE AS RUBBER, BEAUTIFUL AS LEATHER

There seems to be no end to the applications of packaging's newest plastic, polyethylene. Now it is being used in molded form for a new low-cost parts box with some very unusual features.

First to adopt this container is Greist Mfg. Co. of New Haven, Conn., as a case for a buttonhole attachment made exclusively for Singer Sewing Machine Co.

The unusual advantages of the new container place it in an enviable position as a contender for acceptance by the makers of machine parts, precision instruments, fishing gear, cosmetic kits, etc., that require permanent re-use packaging:

1. The soft, flexible rubber-like property of the polyethylene provides a container that cushions the product and is noiseless and non-scratching.

2. Simplified one-piece construction provides a self hinge, which is integral to the molding operation and is actually a thin connecting web between lid and base. Partitions, retainers and sections are also formed in the molding operation.

3. The soft, slightly waxy texture of the material and the use of a morocco-grain surface effect give a realistic "feel" of leather. Opaque, black polyethylene is used for the Singer box.

4. The container can be made, it is said, for 25% less than comparable containers of other materials.

5. Due to the low specific gravity of the polyethylene, the box, empty, is less than half the ordinary weight of other comparable containers.

6. The properties of the material and the hinge construction make the box practically indestructible.

The two sections of the box, top and bottom, complete with web hinge, sections and retainers for the

various components of the buttonholer, are injection molded in one piece in a two-cavity mold. Correct design and thickness of the hinge assure long flex life, while plastic "memory" serves to give a spring action in opening the box when the conventional metal snap clasp is released. Some 70,000 test openings and closings without failure have been reported by the molder.

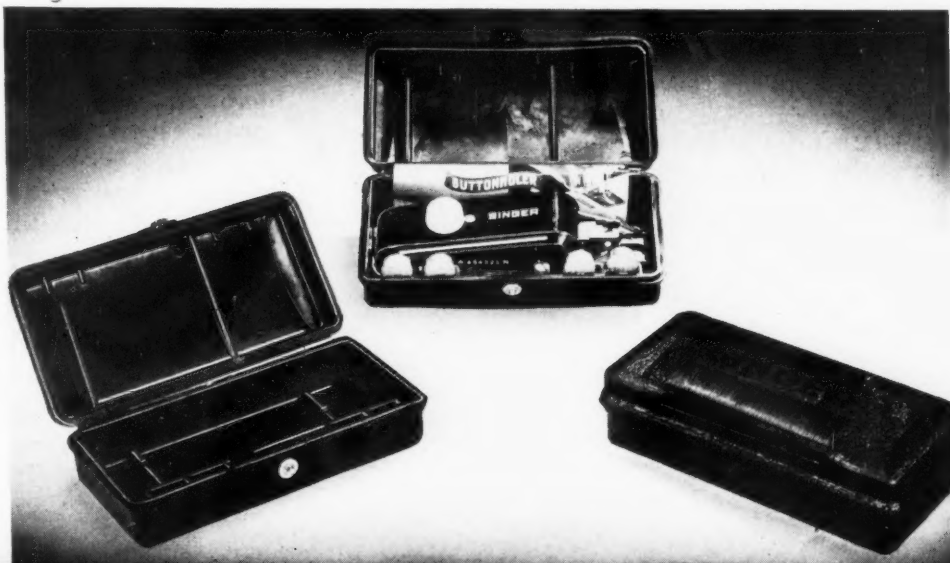
The buttonholer is comprised of seven parts. Four compartments molded along the front side of the box hold four different-sized templates for making four different-sized buttonholes. A flat steel plate used in the assembly of the buttonholer is retained between ribs which rise from the bottom of the box and the screw which attaches this plate is held securely in the box by fitting into a hole in a boss on the front side of the box. The buttonhole attachment mechanism rests on two cross ribs molded into the box, while protruding ribs inside the cover hold it in place.

The outside of the box measures 7½ by 3¾ in. by 2½ in. high. The empty box weighs less than six ounces. Gross weight including buttonholer, parts and instruction booklet amounts to only 18 ounces.

Although Singer is the first to use this type of box, a number of firms are reported to be considering it, among them makers of surgical instruments and cosmetic firms. Boxes of this type may be made in a variety of colors and, while leather grain will probably be the most popular surface treatment, many interesting effects may be achieved by special design treatment, such as trademarks, floral patterns, built-in handles, etc.

CREDITS: Container developed and molded by Auburn Button Works, Inc., Auburn, N. Y., using Bakelite Corp. polyethylene. Styled by Egmont Arens, New York.

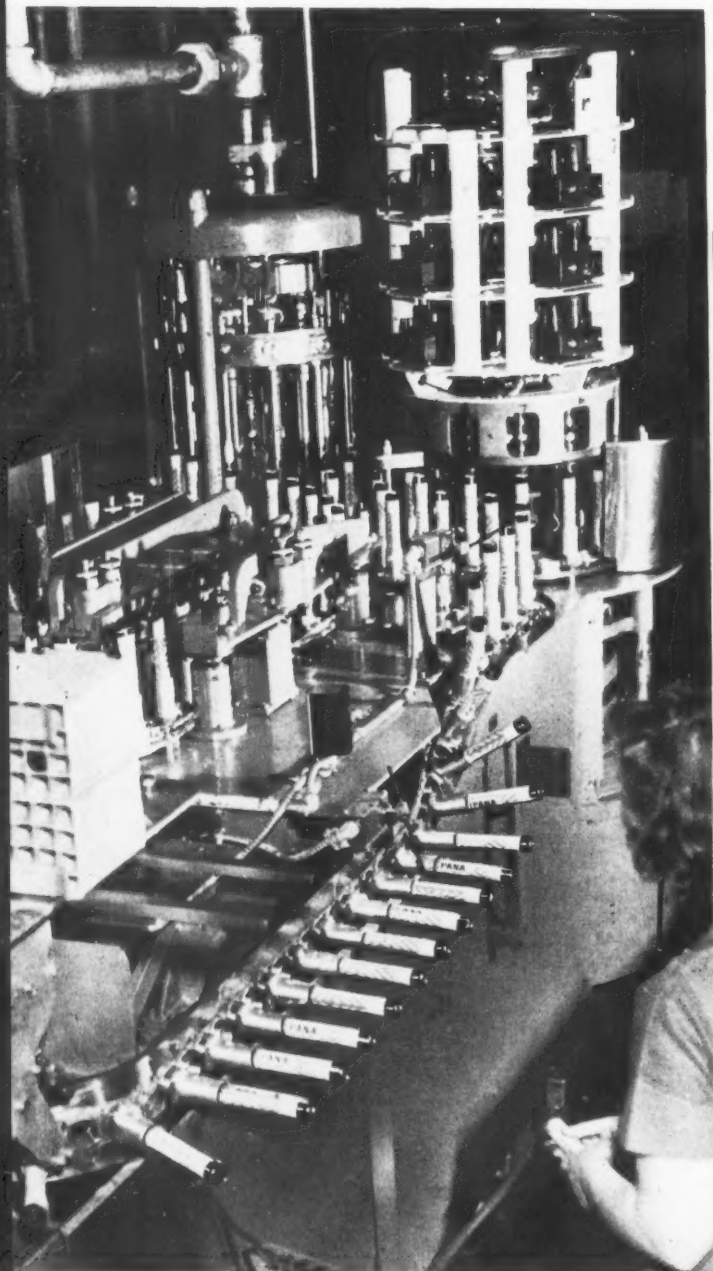
MOLDED IN ONE PIECE, the box is made complete with connecting web for hinge, sections and retainers for the various components of Singer's buttonholer. A thin web connecting lid and base is the hinge which has long flex life and spring action due to plastic "memory."



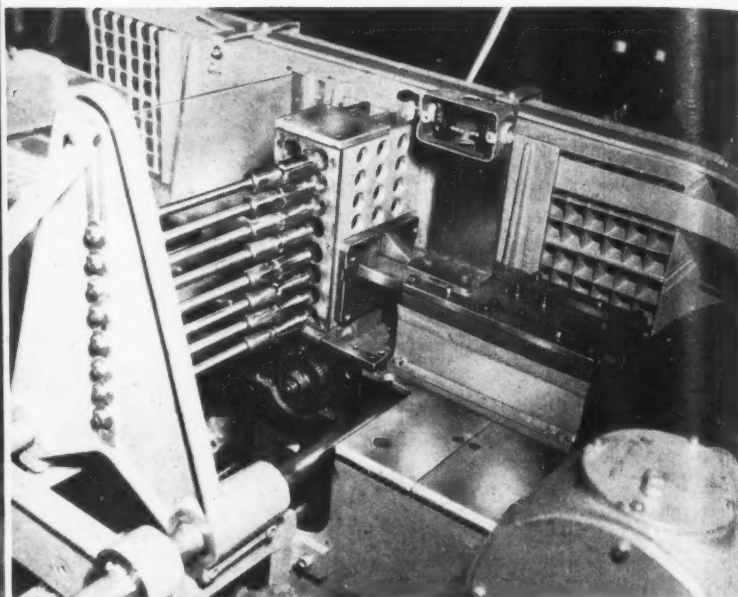
Ipana's twin machine

MAKERS OF TUBE

FILLER AND CARTONER JOIN FORCES TO
PRODUCE COMBINATION UNIT OPERATED
IN CONTINUOUS MOTION AT HIGH SPEED



1. EIGHT OPERATIONS are synchronized in this combined unit which cleans, fills, closes and cartons 150 tubes of tooth paste per minute. High turret in right background contains 12 electric eyes which position the tubes for later end-folding operation, while simultaneously the caps are tightened. Turret to left is a 12-spout filler. Cleaned, empty tubes are moving into the machine in foreground on continuous carriers.



2. EMPTY TUBES ARE FED directly from cartons (rear) in horizontal position, permitting cleaning by air blast. Expanding mandrels, moving reciprocally, take eight tubes at a time.

An increase of 25% or more in output is reported by the Bristol Myers Co. through the use of a new combination tube-filling and cartoning unit, produced through the joint efforts of two long-established equipment manufacturers in the separate fields.

Now operating on Ipana tooth paste in Bristol Myers' Hillside, N. J., plant, the dual machine is one of the few important equipment developments in the collapsible-tube field since prewar days. In addition to an economical coupling of the two operations, the equipment includes many features new to this field.

The tube-filling unit utilizes a continuous conveyor type of operation instead of the standard stop-and-go principle of reciprocating motion heretofore used. A minimum of 150 filled packages per minute is being produced and probably a higher output will be obtained.

There are eight steps in the operation of this combination unit:

1. The cleaning operation, before tubes are removed from shipping containers.
2. Removal of empty tubes from the shippers.

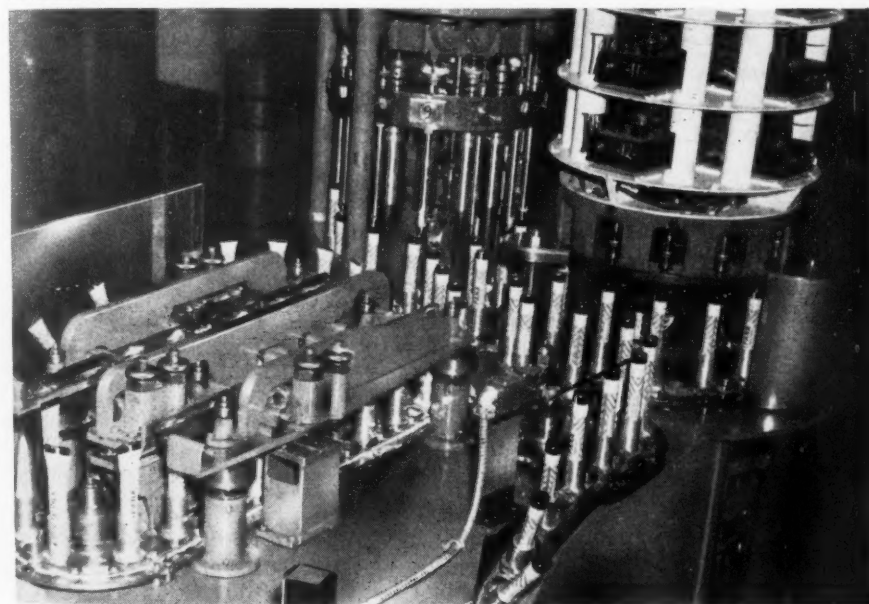
MODERN PACKAGING

3. Inserting empty tubes into cups which act as the conveying means throughout subsequent operations.
4. Positioning each tube so that the front panel containing the brand name will be in proper relation with the fold of the tube and tightening of the tube caps.
5. Filling each tube with a pre-measured amount of Ipana tooth paste.
6. Closing the filled tube by a new method of folding and crimping, without clips, and code dating.
7. Discharging the filled and closed tubes directly into the intake conveyor of the cartoning machine.

end of the tube should it become mutilated in shipment. On the back stroke of the carriage, the tubes are withdrawn from the shipping containers and stripped from the mandrel into a collector magazine.

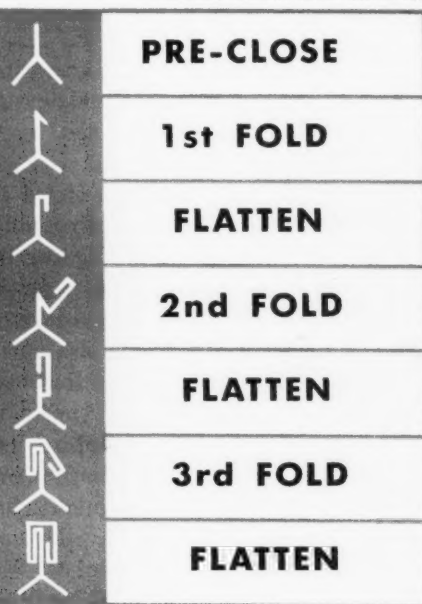
The third step involves a selector wheel which receives the tubes from the magazine one at a time. The tubes are then fed into a conveyor (Fig. 1) which moves in timed relation with the cups which convey the tubes through the machine. This conveyor is so arranged that the empty tubes placed therein by the selector wheel are pushed into the cups or holders which convey them

PHOTOS COURTESY BRISTOL MYERS CO.



3. CLOSE-UP of center portion of the tube-filling unit shown in Fig. 1. After passing through the positioning and filling turrets, the tubes are folded shut on bottom ends while passing in continuous motion through the several stations of the mechanism illustrated in the left foreground.

DRAWINGS COURTESY ARTHUR COLTON CO.



4. LINE DRAWING showing the seven steps to close and crimp the tube end by the machine shown in Fig. 3. With this closing, the tube requires no clip.

8. Placing filled tubes in cartons and closing them.

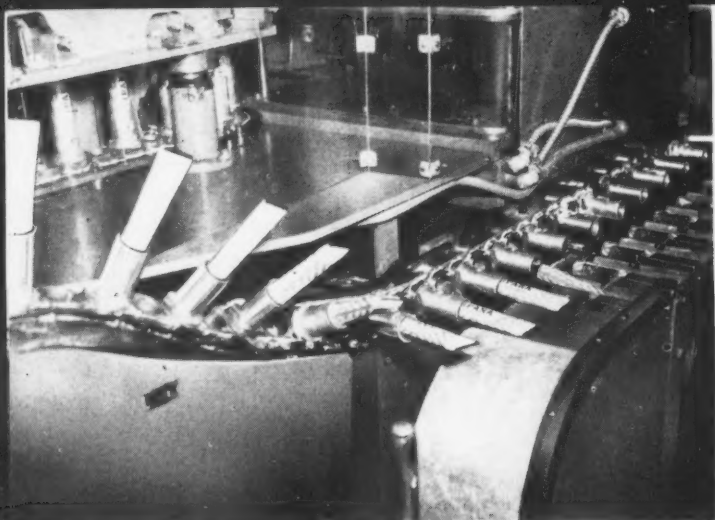
The empty tubes are delivered directly to the machine in their shipping containers as received from the tube manufacturers. These cartons are fed into the machine by a conveyor, which automatically indexes the containers so that the empty tubes are brought into correct registration for the tube cleaning and removal operations. The tubes are cleaned by injecting a blast of air; any particles blown from the tubes are picked up by suction and deposited in a collector.

Removal of the empty tubes from the shipping containers (Fig. 2) is accomplished by a reciprocating carriage having eight vertically spaced mandrels which can be adjusted to suit the spacing of the tubes in the containers. These mandrels represent fingers which are flexible, their normal expanded diameter being slightly larger than the inside diameter of the tube. The reciprocating motion of the carriage carrying these fingers moves the fingers into the open end of the tube, causing the fingers to contract to fit the inside diameter of the tube. This separation also tends to round the

to the various stations which are described later. The machine contains more than 100 of these cups, each one of which is a separate unit, but together they form a continuous train which is carried through the machine on tracks to the various stations. These cups can be changed to accommodate various sizes of tubes.

The fourth step is performed by a rotary head (Fig. 1) containing 12 stations, each of which is equipped with an electric eye and a cap-tightening device. This tightening device consists of a chuck to which is imparted a rotary motion which tends to turn the cap until tight; the same rotary motion then revolves the tube, bringing the panel registration mark into the path of the electric eye. A light source is incorporated which is reflected from the tube to the electric eye, the electric eye operating on the change of color which forms part of the decoration of the tube.

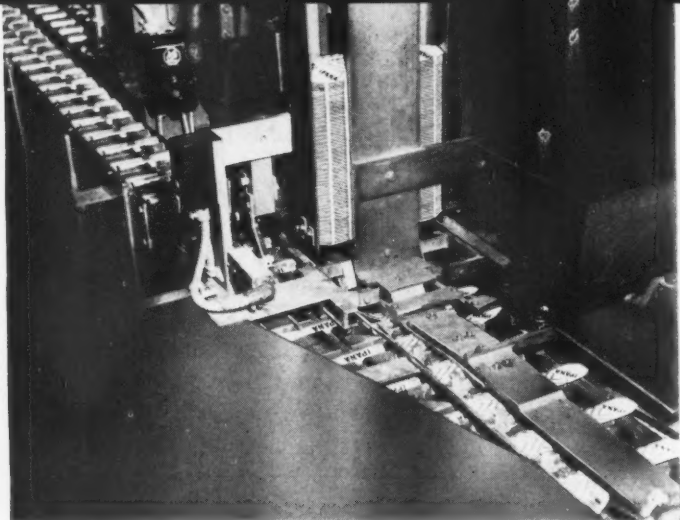
The fifth step takes the tubes to the filling station (Fig. 1) which, like the paneling head, also contains 12 stations. Each of the stations has a rotary valve and a measuring cylinder radially spaced around the filling



5. AFTER CLOSURE, tubes are dropped in pockets of conveyor and carried through cartoning operation.

unit. Material to be filled is fed from overhead and through a manifold connecting all 12 filling stations. As the tubes enter the filling station they are carried around by the rotation of the head, each tube in timed relation to its respective measuring cylinder. During this filling cycle the tubes are elevated progressively over the filling nozzles and lowered gradually as the material is filled. This type of bottom-up filling eliminates the trapping of air pockets in the filled tubes. An air cut-off device is incorporated in the nozzle to unseat any material which might cling to the nozzle at the end of the filling cycle. This assures clean filled tubes.

The sixth step is the operation of closing, folding and crimping the tubes (Fig. 3). This operation is broken down into several steps that represent a new and different method of tube closing. Only two thicknesses of the tube material are under pressure at any one time, though the final fold consists of 10 thicknesses. The tube metal is subjected to considerably less strain without sacrificing the completeness of the closure. There is not quite so much strain of the metal, which results in better endurance of the tube and less wear and tear on the machine. This entire mechanism is designed to perform the closing, folding and crimping operations while the tubes are constantly in motion. As the tubes enter the first station, the walls of the open end of the tube are flattened and the tubes then pass on to the second station for the first fold. Here a portion of the flattened end of the tube is bent at right angles and then flattened. The tubes next pass through the third station; here the reverse fold is made in a similar manner to the first fold. The third fold is accomplished by folding half of the already folded parts in a reverse direction, completing, then, what is known as a clipless closure fold. The tubes next pass on to the crimping station, which consists of a pair of corrugated jaws. These jaws have incorporated in them means for holding the numbering or dating device. All of the mechanism which performs this folding operation is mounted on carriers, operated by crank motion, the arc of the



6. CARTONING UNIT is conventional in principle, but both cartoner and filler are powered by a single 3-h.p. motor.

crank being so designed that the periphery speed coincides with the travel of the tubes. The method of folding, which accomplishes closure without a clip, is shown by the drawings in Fig. 4.

The seventh step consists of ejecting the filled and crimped tubes directly into the intake conveyor of a cartoning machine. During the paneling, filling and crimping operations, the tubes travel in a vertical position. As they leave the closing station and move on to the ejecting station, the tube holders move through a spiral track (Fig. 5) which places the tubes in a horizontal position and in alignment with the intake conveyor of the cartoning machine, which is synchronized to correspond with the travel tube conveyor train. Cam-operated ejector rods push the tubes from the carrier into the pockets of the cartoning machine conveyor. The empty tube holders then move on in the horizontal position to the tube loading station, where the cycle is repeated.

The eighth step is confined entirely to the cartoning machine, where the tubes are delivered for insertion into the carton. Prior to this step the folded cartons have been positioned into a second conveyor, during which operation the cartons are opened and, as the carton is conveyed along its path, the opposite ends are closed by folding. The tubes are now pushed out by the first conveyor into the open end of the cartons and the process of closing these ends is similar to the operation of closing the opposite ends.

All of these functions are completely automatic, performed without the assistance of any constant attendant. The entire mechanism comprising the two units is driven by a single three-horsepower motor.

Filling of collapsible tubes has always been a high-speed, mass-production operation and the further contribution to cost cutting made by this dual machine, telescoping two automatic operations into one, can readily be imagined.

CREDITS: Tube filling mechanism, Arthur Collon Co., Detroit. Cartoning mechanism, F. B. Redington Co., Chicago.

Packaged for hobbyists

TAKE-HOME CARTONS

OPEN A BIG NEW OUTLET FOR PRESWOOD AND PROVIDE IMPORTANT SAMPLING MEDIUM ENCOURAGING LARGER QUANTITY SALES

Masonite Corp., Chicago, is opening up new market opportunities for its familiar tempered Presdwood hardboard by making the product available in a series of four conveniently sized packages. Identified as "Craft-paks," the new sales units are being stocked by retail lumber, hardware and paint dealers throughout the country.

Long a favorite material for working with carpenter's tools, Presdwood has previously been available only in large panels. Now, thanks to the new packaging program, the home workshop owner or hobbyist can purchase accurately cut hardboard for a small cash outlay, in sizes to fit a variety of uses and in easy-to-carry cartons.

Printed in brown and yellow, the cartons have strong sales appeal and high display value. Illustrated on each are many useful and attractive items which can be made with that particular kit of material, including household specialties, articles for the lawn and garden, toys, etc. In addition, each package contains an order blank for detailed plans on building all the articles illustrated.

Display panels of the cartons prominently display the Masonite trademark and explain the properties of the hardboard panels. Other copy specifies the size of the pieces and number of units contained, and mentions the availability of other Craft-pak assortments.

HOW-TO-DO IDEA predominates basic package design. Any item illustrated may be made from material with detailed plans available through cooperative arrangement with *Popular Mechanics* magazine. Die-cut window reveals product without opening package.

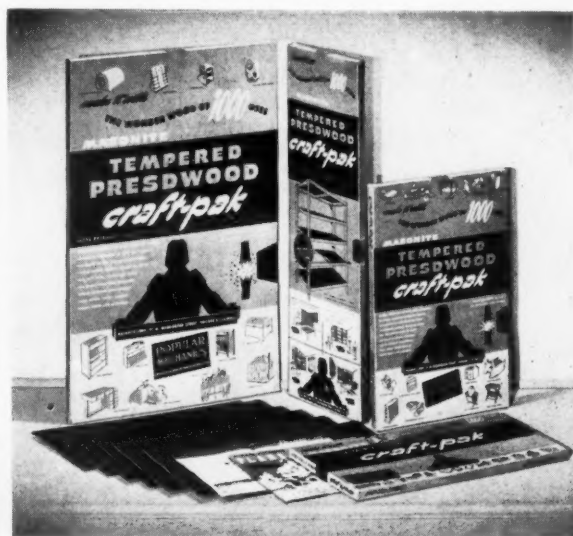
The merchandising message is carried on both sides of the small and medium cartons, extending lengthwise of the package on one side and across the width on the reverse panel, so that the cartons can be displayed effectively in either the horizontal or vertical position. Die-cut windows in the edge of each carton permit the prospective purchaser to inspect the hardboard panels without having to remove them from the package.

Masonite officials consider the packaged assortments an important sampling medium, pointing out that the convenient packages will be bought by many persons who visit lumber yards, retail hardware and paint stores. Now craftsmen can get the sizes they want in quantities they can easily carry home. Having become acquainted with its properties through the Craft-paks, such individuals will become good prospects for the larger panels, available through retail lumber dealers, when they undertake more ambitious projects, it is felt.

The Craft-paks are also expected to stimulate sales of related items such as lumber, paints, hardware and other products used in conjunction with the hardboard panels.

The new Craft-pak program is based on a direct-mail survey conducted by Masonite among typical readers of *Popular Mechanics*, in (Continued on page 158)

SUGGESTED DISPLAY for retail outlet shows all four package sizes in which Craft-pak is offered. Each package contains folder with order form used to obtain detailed plans for projects.



It licks the Moisture —coming and



SCORES of successes in every type of packaging prove — the perfect answer to the moisture problem is **Plioilm**.

Plioilm is air-moisture-liquid-proof. If you're packaging dried fruits, for example,

this magic wrap effectively controls the moisture content, keeps the fruit tender and tasty for long periods.

If it's meat loaf, **Plioilm** seals in needed moisture, prevents weight loss, *cuts shrink-*

Everything is better in **Plioilm**

Plioilm—T. M. The Goodyear Tire & Rubber Company

3-way protection against air, moisture, liquids

Problem

going



age 97% — according to laboratory tests.

This matchless moisture control makes **Plioform** ideal for everything from drugs and meat products to cheese, biscuits, vegetables and pickles. And **Plioform's** crystal-clear

transparency sets off any product at its best.

If you've a moisture problem in packaging, put this wonder wrap to work for you. For full information, write: Goodyear, Plioform Dept., Akron 16, Ohio.

GOOD YEAR

THE GREATEST NAME IN RUBBER

MODERN PACKAGING



1 Sheer, cobwebby plastic lace placed over sprigs of fern and realistic-looking violets creates the impression of old-fashioned pressed flowers as the decorative wrap for Hattie Carnegie's spring, Easter and Mother's Day gift packages of perfumes. Pink or blue paper wrappings show through the delicate white plastic lace. Imported French velvet ribbon ties the packages. Plastic lace, Lacelon, Minnesota Mining & Mfg. Co., St. Paul, Minn. Flowers, Aster Flower Co., New York. Fern, Arts & Flowers Display, New York. Cover paper Kupfer Bros. Co., New York. Bottle, T. C. Wheaton Co., New York.



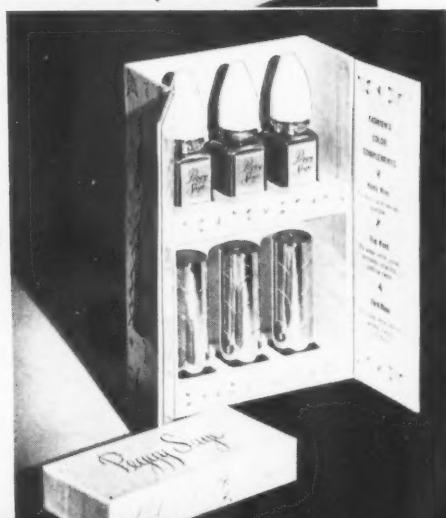
2 This visible display box for holding 300 assorted fuses marketed by Littelfuse, Inc., Chicago, was planned as a many-purpose, re-use container. The box is injection molded of polystyrene. Use of self-locking hinge which snaps together cuts assembly time on boxes to a minimum. The box, with silk-screen lettering in white, has notches in the base so it can be hung on the wall. Box, Engineering Tool & Mfg. Co., Chicago.



3 A polka-dot design was selected for Minerva Wax Paper Co.'s new wax paper cutter box as the result of an extensive survey to determine the preference of housewives. The new box has a new type lock which allows the user to grasp the paper easily and a reinforced heavy metal cutting blade engineered for clean, swift cutting. Colors are dark and light blue, with a white-coated metal blade.

4 Peggy Sage has introduced a new premium package called Color Collection. It contains three miniature bottles of nail enamel, together with three matching lipsticks. Priced at \$3, the cost of the lipsticks alone, the consumer receives free the three bottles of polish. The package, of two-piece set-up box construction, is made with hinged doors, held in place by the cover when closed.

5 The trend toward appetite-appeal illustrations on frozen food package is exemplified by these photographs of the old and new printed cellophane wraps for Cortley Frosted Foods. Across the center of the package is a large reproduction of the product. The chanticleer trademark, in reduced size, has been retained and the lettering of the brand name is somewhat similar to maintain the Cortley identity. Motif for the top and bottom border was adapted from an Early American sampler design. Copy contains complete recipe and product information. Wrap, Milprint, Inc., Milwaukee, Wis.



PAGEANT



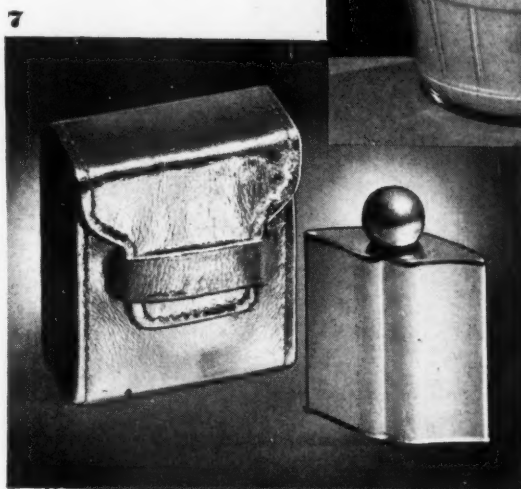
6 The appeal of this sturdy 2½-gal. glass barrel with metal handle as a re-use storage container on the farm is said to have greatly increased sales of Semi-Solid Chick Emulsion, a condensed buttermilk feed for baby chicks, marketed by Consolidated Products Co. The barrel contains 22½ lbs. of the emulsion, enough to feed 100 chicks for five weeks. Some farm uses for the glass barrel are for pickles, sauerkraut, rock salt, butter churn, grass seed, fertilizer, etc. Glass barrel, Owens-Illinois Glass Co., Toledo, Ohio.

7 Coty recently introduced this de luxe edition of their "Purser." Classic lines of this gold-plated metal flacon for perfume gives the effect of a jeweler's item. The flacon is packaged in a gold-colored kid case lined in black satin. Flacon, Scovill Mfg. Co., Waterbury, Conn. Case, Arcadia Cosmetic Kit Co., New York.

8 H. J. Heinz Co. has redesigned its mustard jar for greater consumer convenience and added shelf appeal. The new streamlined jar permits the removal of all of the mustard with greater ease. Its tapered surface allows the label to be placed on the package so that it can be easily read even from the lowest shelf position. Design, Armstrong Cork Co. Jars, Brockway Glass Co., Brockway, Pa., Hazel-Atlas Glass Co., Wheeling, W. Va., and Armstrong Cork Co., Lancaster, Pa. Cap, Armstrong Cork Co. Label, Nevins-Church Press, Inc., Glen Ridge, N. J.

9 The carton design for Pen-Out ink eradicator solves a major problem in the packaging of this product without taking it out of the competitive price field. The carton permits use of a white stock bottle, whereas amber glass had been necessary previously to prevent decomposition of the product due to light. The container, which forms a display stand, makes shipping and handling easier. Design, Seymour Kent, New York. Carton, New York Label & Box Corp., New York. Bottle, Carr-Lowrey Glass Co., Baltimore, Md.

10 By using interchangeable half-tone cuts to illustrate different styles in its line and the same printing plates for three sizes of two-piece folding boxes, Natco Products Corp. has devised economical packaging for its entire line of Neverwet Diaper Bags. Packages provide gift appeal, protection for delicately colored merchandise and easy handling and stock taking. Boxes, Green Bros., Inc., East Providence, R. I.





SUPERMARKET SHOPPER finds pie hard to resist when it can be safely carried along with armloads of groceries, as easily as a purse. American Stores experienced a 250% increase in pie sales in the first week with the new carton.

The current campaign to build up self-service sale of baked goods in supermarkets has been handicapped by a simple human problem: How can the shopping housewife, who usually goes out of the store with both arms loaded with bags of groceries, manage something like a soft pie, which can't be jammed in a bag with other items, but must be carried separately and carried in a level position?

Rigid boxes, with and without windows, have been used, but for carrying convenience the clerk or check-out girl must tie a string around the box for a handhold—and that takes costly time. Furthermore, there is a psychological handicap in the innate feminine distrust of string, which may slip or break.

American Stores Co., Philadelphia, believes it has a neat answer to the problem in a new type of folding window box for pies that has a fold-up paperboard handle as an integral part of the box. It is one of those things so simple and effective that the wonder is nobody thought of it before. The portion of the boxboard that makes the handle forms a circle across the window area as the blank is cut and is bisected by a center cross-bar. This circular portion is perforated at the top and bottom. When pies in these boxes are received for display at American stores, the attendants are instructed to break these half-inch perforations and turn the handles

Pies



FOR DISPLAY, perforations are broken and handle turned up to suggest the ease with which the pie may be carried in safe horizontal position. Ventilated boxes are rigidly constructed so that they may be stacked for mass display.

up—immediately suggestive of carry-home convenience.

The shopper picks it up and tries it; she realizes that she can carry this carton quite safely in her hand even though both arms may be supporting huge bags of groceries.

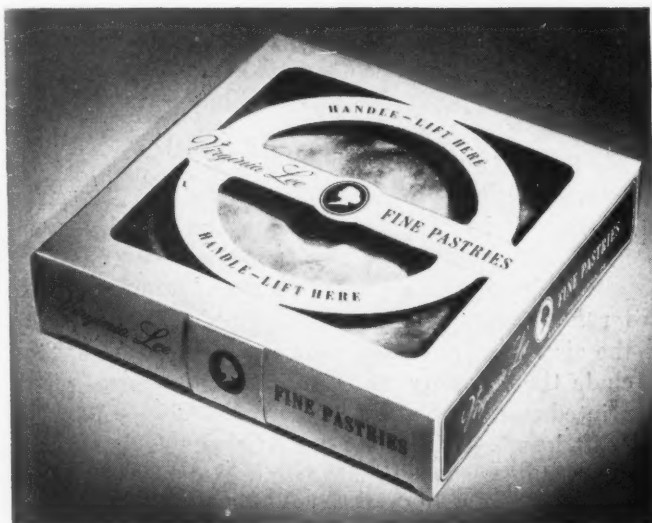
There have been other cartons with handles, but in each case the handle has been an added attachment, at extra cost. This is believed to be the first design for baked goods that supplies the handle as part of the blank at no extra cost. Extra mailer-type flaps on the base section, that fold up and tuck into slots below the window panel, add strength and insure against accidental opening of the main flaps. The only other special feature of the acetate-windowed box is four perforations in the base for ventilation.

The box is a patent-applied-for development of American's package supplier and is not restricted to American's use. Several other baked-goods marketers are reported planning to adopt it.

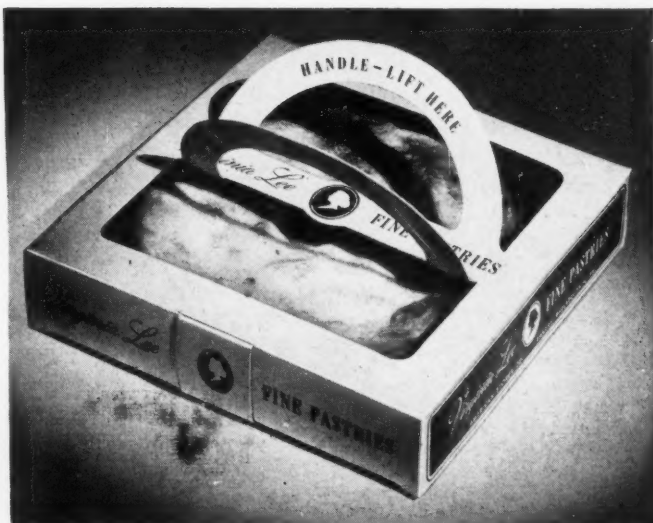
The first week that the new cartons were tested at

with handles

NEW WINDOW CARTON WITH AN
INTEGRAL HANDLE AT NO EXTRA
COST OPENS WAY TO INCREASED
SALES OF SOFT BAKED GOODS



HANDLES DOWN, the box can be safely handled and shipped without danger of tearing the handles which are attached to window frame, top and bottom, by perforations.



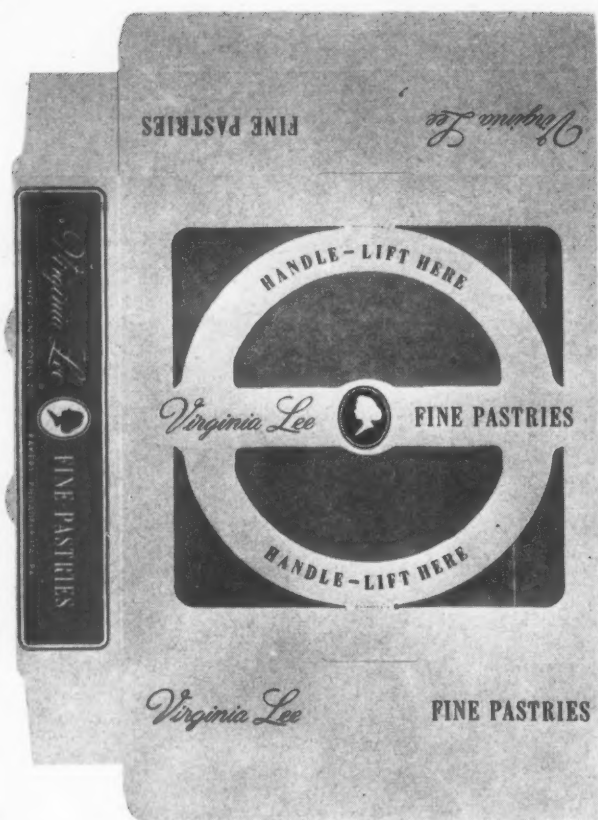
HANDLES UP, with perforations broken, box has immediate "pick-me-up" appeal. Tests have established carrying strength of handle. Note mailer flap that locks end flaps.

one of American's typical supermarket units in Philadelphia, the number of pies sold increased 250% above the number sold the previous week. The test was made under controlled conditions with no other factors to influence sales—only the convenience and merchandising value of the boxes themselves were responsible.

Since then, reports of favorable customer reaction have poured in from all units where the package has been used. Many shoppers, it is reported, never before realized that American Stores sold pies. Others who never dared try to carry a pie home from a self-service store bought for the first time when they saw the new

PACKAGING operation at the American Stores bakery is straight-line. Freshly baked pies in foreground enter lower belt of conveyor, where operators insert them in filled boxes, then lay filled boxes on top belt (also moving away from the camera). At far end of line, boxes make a U-turn, during which a label is applied identifying the type of pie. Completed packages then proceed down moving ramp in left background to the shipping rooms on the floor below.





GLUED BLANK as it is received flat at the American Stores. Colors are chocolate brown on bright yellow. Note that the handle is at right angles to the glue lap. The handle uses only a section of board which would otherwise be wasted in the window cut-out. Note the small tabs from ventilation cuts at the bottom edges.

handled cartons. Girls at the check-out counter have been equally enthusiastic. They no longer have to pause to tie the pie box with string or puzzle over how to keep the pie from being crushed in a bag of groceries.

The carton takes no more board than a conventional window carton, since the handles are formed from board which normally would be wasted in cutting out the window. The handle feature makes the box readily applicable to a wide variety of merchandise which must be carried in a horizontal position, such as ice cream cakes, plate dinners in the food field; corsages and flowers.

When the handle design was finally developed, the carton manufacturer who undertook the project at American Stores' request made experimental models of the box using 0.020 board. This proved too light and subsequent experiments carried out indicated that 0.024 thickness was adequate in strength.

The first test model of the 0.024 board was constructed as a reverse-tuck box with the handle parallel to the glue lap. When loaded with a grocery store pie of average weight, it bellied badly on one side of the bottom and on the opposite side of the top. The construction was altered to a straight tuck and when the new test

box still bellied at the bottom, the handle was made at right angles to the glue lap. This change, plus the addition of the mailer-type locks on the ends, eliminated the sagging.

As the carton is used for pies which may become soggy, the air vents are die cut along the bottom edges on two of the sides; the resulting small tabs serve to elevate the box and permit free circulation of air through it when stacked.

In swing tests, the handle of the loaded box proved amply resistant to tearing, according to the manufacturer, and the locks held firmly even when the contents were thrown violently sideways against them.

The carton blank, including the handle, is formed of one-piece bleached manila board, fully silicated. The window is transparent cellulose acetate, attached by solvent sealing. Simply decorated with American Stores' Virginia Lee brand name and identifying silhouette, the cartons are printed in two colors—a bright yellow for the background and a chocolate-brown shade for the lettering and silhouette. The two side ends with the air vents are printed using a reverse plate and include the company name and address. Three words printed on each segment of the handle circle—"Handle—lift here"—tell the story. A label attached to the upper left-hand corner of the window identifies the type of pie.

Although designed for customer convenience, the new cartons are also easy to handle during distribution to the units, American reports. When the flat blank has been set up and the box filled, the handle is still flat against the window and attached to the window edge, top and bottom, just as it was when the pre-formed, glued blanks were shipped to the bakery. The loaded boxes can easily be stacked for delivering to store and piling in displays.

At American Stores' bakery in Philadelphia, pie packaging is a straight-line operation. Freshly baked pies are placed on a belt conveyor which carries them past the packers who pick off the pie, insert it in the box, fold the ends, tuck in the locks and place the package on a second top conveyor. At the end of the line the conveyor makes a wide U-turn past the section where the filled boxes are labeled and then carries the boxes down a moving ramp to the shipping rooms on the floor below.

American is using the new carton, so far, only for pies. For different merchandise and for other users the features of the box can be varied, still retaining the all-important handle and plenty of space for brand identification. If the contents are the type which would dry out quickly, the air vents can be eliminated. The window can be placed on the side if inspection is better from that direction. If weight is not a factor, as in the case of corsages, the locks on the ends can be omitted, with a resultant saving in cost due to nesting of the blanks during manufacture.

CREDITS: "Sure Handle" cartons developed, manufactured and patent applied for by Edwin J. Schoettle Co., Philadelphia. Cellulose acetate for windows, Celanese Corp. of America, New York.

LABOR SAVINGS by Krisp Packaging Corp., using the new containers for delivery of bagged spinach, are estimated at eight to 10 man-hours per thousand. Cartons may be printed as shown. Note the die-cut holes for ventilation of the spinach.



Snap-open shipper

COLLAPSED CORRUGATED CARTON IS STORED LIKE A FLAT BLANK

AND IS READY TO USE WITHOUT A SET-UP OPERATION

Wholesale produce pre-packers have pioneered in the use of a new type of corrugated shipping container which, pre-stapled and folded flat, snaps open ready for use without the usual taping operation. Because it is reported to be a great time and labor saver, the new container is attracting attention in many other fields where large numbers of standard-sized shippers are required to handle the high speed output of packaging lines.

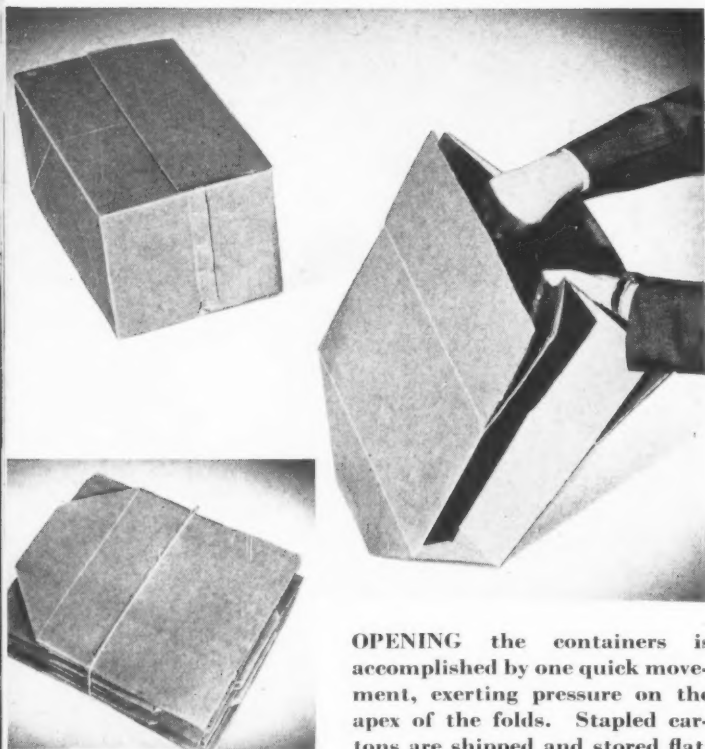
Features heretofore found only in folding paperboard cartons have been incorporated in these corrugated containers which, users report, have enabled them to reduce shipping-packaging labor costs 50 to 75%. Their strength is such that in some instances the containers have been re-used several times.

Available in a variety of styles and with a considerable range as to size, the new corrugated shippers utilize the pliant, bending quality of corrugated board by ingenious scoring, creasing and folding. Patents have been issued or are pending on the different styles. The key principle in the basic design is the use of 45 deg. angles in engineering the folds. With a firm grip

on opposing side flaps, a judicious use of pressure and a simple twist of the wrists, the container actually snaps open—rigid and ready to fill.

The most popular style is the bottom-fold model. Its identifying characteristic is the outwardly folded bottom wall. The more weight that is put on this bottom, the more rigid it becomes. Side walls of the bottom-fold style have uncreased areas so that printing can be added without danger of illegibility. The end walls are double for more than half of their height. When the container is collapsed, the end walls fold inwardly. Most of the users find that 175- and 200-test board is sufficient in this style and, subject to individual approval, this style has been okayed by the Interstate Commerce Commission as an authorized shipper in the proper freight classification. The style is recommended for use when height and width dimensions are approximately the same.

The other most popular style is the end-fold container, which is widely used in two variations—one with the stapled overlap running through the center of the end walls, called the one-piece end-fold; the



OPENING the containers is accomplished by one quick movement, exerting pressure on the apex of the folds. Stapled cartons are shipped and stored flat.

other with the stapled overlap around the sides of the ends, called the three-piece end-fold. Both variations result in broad, shallow containers with the length equaling or exceeding twice the height. In each variation the ends fold outwardly and when the containers are snapped open a distinguishing triangle is outlined by the creases at the ends. The side walls are undisturbed by any folds or creases, affording printing area. There are no creases in the bottom wall. These end-fold styles have been used most often with 200-test board and have been given blanket ICC approval. The three-piece end-fold style with its reinforced ends—in addition to the stapled overlap around the edges, a triangular-shaped piece of board is used inside as an inner wall—has been found particularly adaptable

LENGTHENED CONVEYOR is possible at Adolph Gobel, Inc., Brooklyn meat packer, filling in space formerly occupied by stacks of conventional, opened shipping containers. Here snap-open cartons are kept underneath the conveyor, opened as they are needed, packed and stapled shut.



for large and heavy products such as hardware and tools. The manufacturer claims it is less expensive in some instances than regular conventional corrugated containers since it can be constructed with less board.

All of the styles have two characteristics in common—solid bottoms and, with the exception of the three-piece end fold mentioned above, center-stapled end walls with inner reinforcement. No stitching, no taping, no sealing with adhesives is necessary by the user until the final closing is made. Indeed, one style is available with a die-cut tab on one of the top flaps so that, using a staggered flap arrangement, the closure can be made entirely by hand.

The containers can be constructed of regular corrugated up to 275 test. The minimum size made to date is 6 in. long and 6 in. high. Largest size being made at present is 35 in. long and 24 in. high.

Like conventional corrugated containers, the new ones are sent to users in bundles, usually in units of 10 or 12. Although more bulky when bundled than the flat blanks—a bundle of 10 in the bottom-fold style is as high as 25 of the blank type—they are more compact and stack just as well. The extra bulk is due to the four thicknesses of board when the carton is collapsed.

The Krisp Packaging Co., fresh vegetable pre-packer with plants in New York City and Richmond, Va., has been using the bottom-fold style (175 test) for over six months. Each Krisp plant uses approximately 1,000 containers a day and company officials say the new shipper saves between eight and 10 hours of labor for each 1,000.

When the company used a conventional type of container, the bottom had first to be closed, using either a staggered flap arrangement or tape. As many containers as possible were made up before the day's rush began, so that the packers could keep up with the filling lines. Invariably, as the pressure increased during the rush, the packers would run out of containers. In addition, the containers made up ahead of time limited the amount of working space and hampered the flow of traffic. Now no advance supply is required. The girls on the packing lines simply snap open a container and fill it as they need it.

Krisp Packaging has found the solid bottom construction of the new containers a definite advantage. With the bottom-opening style the company lost about 2% of its packed shippers when the bottoms dropped during handling, either as they got caught in stacking or later, during unloading at the grocers.

The Great Atlantic & Pacific Tea Co. recently started using the new shipping containers for pre-packaged produce. The chain uses approximately 5,000 per week of the bottom-fold style. After being unpacked at the stores, the containers are collapsed, bundled and returned to distribution warehouses by company trucks.

Several meat packers are using the containers. Adolph Gobel, Inc., Brooklyn, uses 1,500 daily in the end-fold styles. Hygrade Food Products Corp., New York, and J. Engelhorn & Sons, Newark, N. J., both

report satisfaction with the results of preliminary shipping tests which they have made with the containers.

At the Gobel plant, efficiency in the shipping-room operations has been improved tremendously, according to company officials. Formerly one man was kept busy stapling shippers and delivering them into the casing section. With the new containers, the area that was filled with the opened, set-up containers is now available for an extension of the packing conveyor table, speeding up the packing. The collapsed container bundles are kept conveniently stored right under the table, where packers can reach them just as they are needed.

Other manufacturers in such widely diverse fields as hardware, paper, clothing, electrical appliances and jewelry have found the shippers adaptable to their products. Fada Radio & Electric Co., Inc., Belleville, N. J., for example, is using over 15,000 per week to pack three styles of radios.

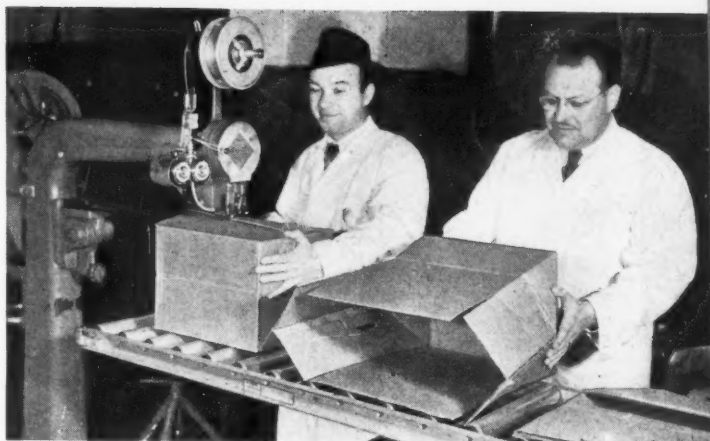
One of the most unusual styles in the new snap-open containers is designated as the "dia-fold" since it folds on diagonals. This style snaps open into a perfect square with diagonal creases on the bottom and two of the sides. To open it, each hand grips one of the opposing flaps and by pushing toward the center, each of the folded walls swings open while the bottom wall also unfolds, all in one simultaneous motion.

There is a side-fold style which can be readily recognized by the triangular creasing of the two side walls and the distinctive crease line in the center of the side-wall flaps. The solid bottom is uncreased. Once

REINFORCED ENDS of three-piece end-fold style give strength needed for heavy products. All of the cartons have double end walls. Their sizes range from 6 in. square to 24 by 35 in.



MARCH 1949



SOLID BOTTOM is common characteristic of all styles which are stapled on ends. The one-piece end-fold style being opened here is made of 200-test board and has blanket ICC approval.

PHOTOS BY PEATY, COURTESY VICTORY CONTAINER CORP.



FADA RADIO uses over 15,000 per week of the folding shippers for three styles of their radio sets. A single strip of tape closes the top.

filled and the top flaps folded, the side walls are completely rigid. For containers where it is necessary that the length equal or exceed twice the height, this style is most adaptable. Board of at least 175 test is preferable. When this side-fold container is collapsed it is in the shape of a hexagon.

Other adaptations of these styles—one, for example, has folding bottom and ends—have been made for particular users who have special requirements.

On the average, the new corrugated containers are reported to be competitive in price with conventional styles. Where the cost is slightly more, the extra expense is believed by the manufacturer to be more than offset by the added convenience and reduction in labor expense.

CREDIT: "Snap-It" containers developed and produced by Victory Container Corp., New Hyde Park, Long Island, N. Y.



This space-saving counter display carton for Dryfold, a new plastic diaper cover merchandised through drug and department stores, holds 3 doz. units. Front panel is die cut to reveal printed glassine envelopes. Display, Richardson Taylor-Globe Corp., Cincinnati. Envelope, Shellmar Products Corp., Mt. Vernon, Ohio.

DISPLAY GALLERY



Carton, display and merchandising guide are all combined in one low-cost unit for 36 Oak-Hytex balloons. When the sides are folded over, a protective flat shipping carton is formed. Printed on back are useful merchandising tips. Made of quality white board, the display is three-color printed. Cutouts hold balloons in place. Display, The Ohio Boxboard Co., Rittman, Ohio.



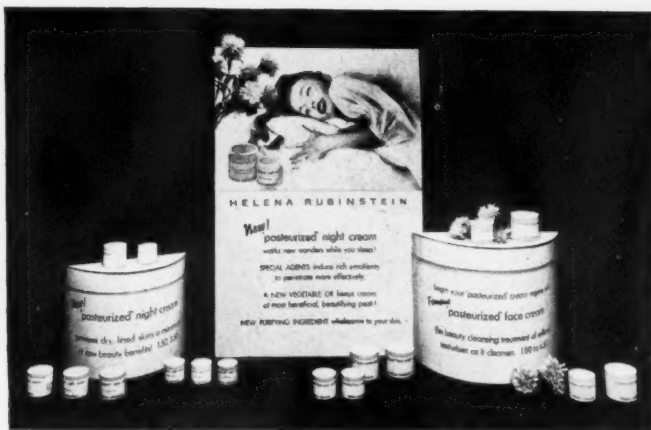
Effective package design for mass display is well illustrated by this new family of Home Maid paper household products, especially when combined with price display cards. Packages and price cards feature the Home Maid girl trademark. Design, Norbert Jay, New York. Price cards, Gerson Offset Lithography Co., New York. Envelopes, Samuel Cupples Envelope Co., Brooklyn. Cartons, United Board & Carton Corp., New York. Silk screening of display cartons, Artisan Display, New York.

Ten of the new Gem Push-Paks are contained in this pillerproof, space-saving merchandiser. Made of paperboard, it measures only 6 by 11 in. Each polystyrene dispenser holds 10 unwrapped blades, delivered with a flick of the thumb without contact of fingers to the blade. A transparent window at the back of the Push-Pak shows how many unused blades remain. Display, Graphicut Corp., New York. Dispenser, Boonton Molding Co., Boonton, N. J.





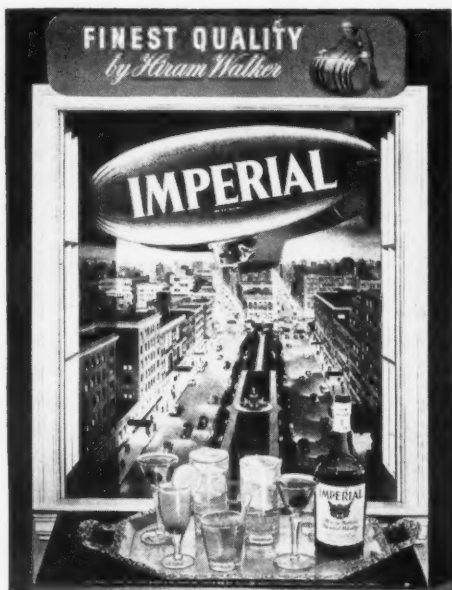
A humorous point-of-sale motion display for Mission Dry beverages features the bottled product and giant-sized reproductions of the metal caps. The die-cut, lithographed, paperboard display unit fits on bottle top and gyrates gaily in the slightest breeze. Electric fans placed behind the display keep the figure in motion. Display, Einson-Freeman Co., Long Island City, New York.



Giant-sized paperboard replicas of Helena Rubinstein's "Pasteurized" night cream jars are surface mounted with cast coated paper to give the effect of the actual jars. Lettering is silk-screen printed on the display jars. Arranged with actual jars on the tops and centered by the full-color glamour display card, the two giant jars form a striking window display. They fold flat for shipment. Display jars, Louis Nadelson, New York. Cover paper (Kromekote), Champion Paper & Fibre Co., Hamilton, Ohio. Lithographed display card, Hinkhouse, Inc., New York.



Design of both the counter display and individual cartons for Mackenzie Smooth Shave for leg and under-arm, a new shaving preparation for women, carries out the same plaid motif—in feminine pink and blue tones—used for a companion product, Mackenzie Pre-Shave for men. Design, Gilbert D. Snyder, New York. Display and individual cartons, Albert Paper Box Co., Brooklyn.



Hiram Walker's third dimensional flasher display for Imperial whiskey creates a striking center piece for windows. Lithographed in full color, it measures 28 by 36 in. and is constructed on three planes. Two pairs of lights provide constant illumination of the foreground below the opened casement window and a blinker flashes behind the blimp. The boulevard scene identifies the product with quality, while the tray on the window ledge suggests various drinks for which Imperial is appropriate. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.



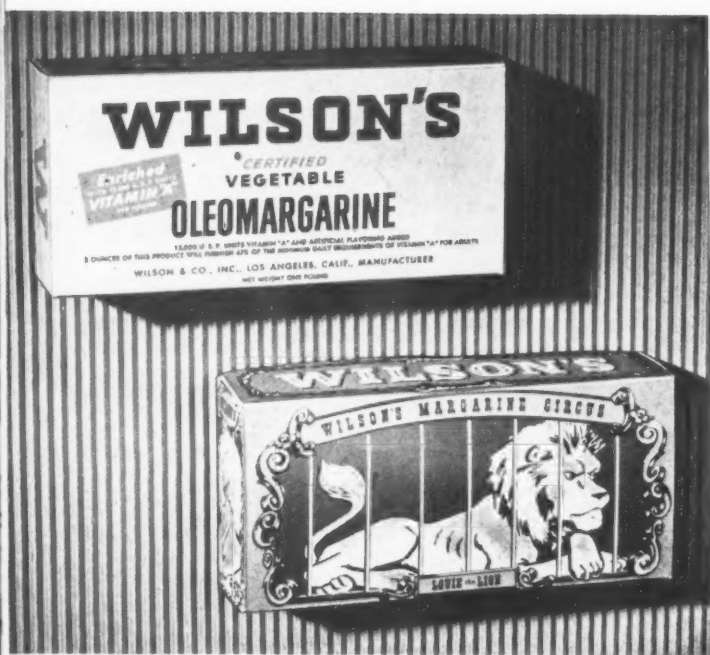
Promotion of the Tek toothbrush "2 for 51¢" deal in *Life* and *The Saturday Evening Post* is tied in with this counter display carton which calls attention on its side panels to advertisements in these magazines. Special labels featuring the deal encircle the brush packages. Display carton, Davidson-Hansen, Inc., New York. Labels, E. L. Smith Printing Co., Inc., New York.

PLAY PACKAGES

CANDY AND TOY MAKERS,

MEAT PACKERS AND POULTRY GROWERS TAKE A TIP FROM CEREAL BUSINESS

TO CAPITALIZE ON KID APPEAL OF CARTONS AND CUT-OUTS



MARGARINE CIRCUS carton is the core of one of Wilson & Co.'s largest merchandising campaigns on the West Coast. Cartons become circus wagons when refolded inside out. The outside is designed for quick identity and shelf appeal.

TRAIN-TAINERS is the name given to milk-carton rolling stock devised by Golden State Co., Ltd. Different cars and locomotive pictured encourage dealers to stock complete line.



Packages featuring toy-appeal for the kids are so familiar to the American scene that even cartoon characters like the *Saturday Evening Post's* blustery Hazel, the housemaid, has been pictured reprimanding Junior for running off, scissors in hand, with an unopened cereal package.

This premium inducement for the youngsters apparently is paying off and no longer is the carton from which you can make clowns, circus characters, gas stations, houses, etc., confined to the cereal business.

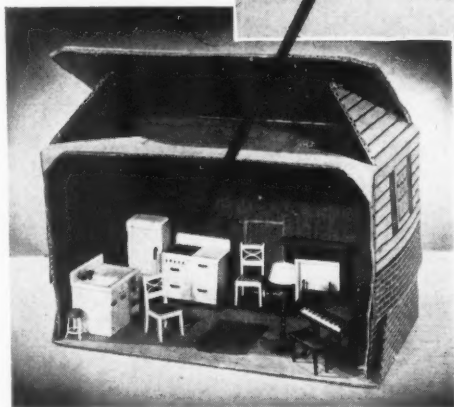
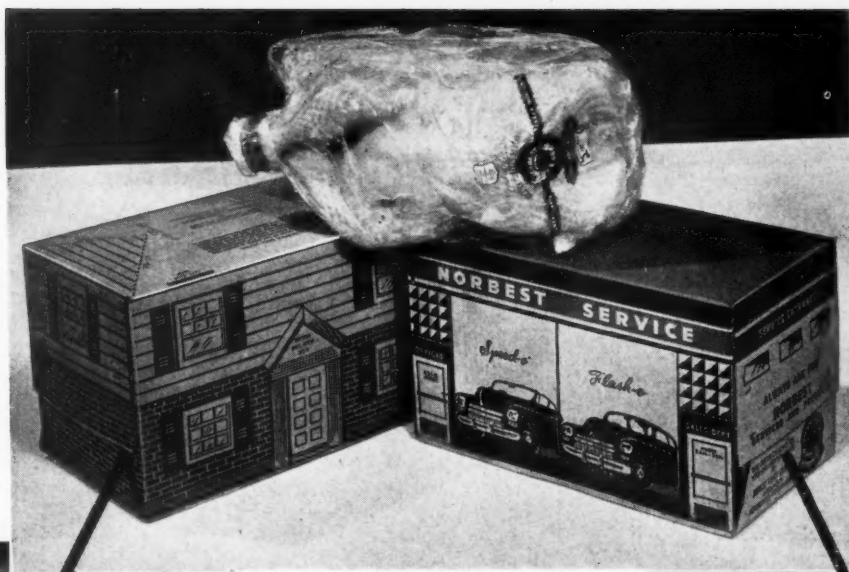
On the West Coast, Wilson & Co.'s Pacific Coast office is centering one of its largest merchandising-advertising campaigns around a new margarine carton, the inside of which becomes "an authentic circus wagon or side show by merely re-folding the carton inside out."

The cartons are the core of an advertising campaign to be known as "Wilson's Margarine Circus" with the purpose of winning the "lion's share" of the increasing Southern California margarine market. The cartons tie in with newspaper advertising featuring a comic strip character, Bud Wilson, who takes trips to far-off lands in search of the wild animals illustrated on the cartons. There are also point-of-sale, window and movie tie-ins with additional support for the package promotion in trade papers.

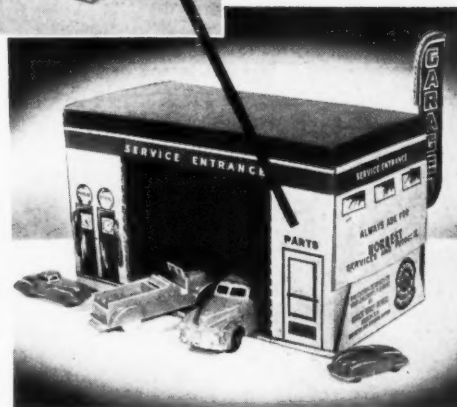
Wilson & Co. believes it has achieved the ultimate in simplicity with its circus-carton idea. There are no cut-outs. The child can simply turn the cartons inside-out and have a set of toys, since there is a series—thus encouraging Mom to complete the set.

"However, in all enthusiasm about the circus on the inside of the package," says F. Ted Tedeschi, Wilson's West Coast advertising-sales promotion manager, "the brilliant new yellow outside of the carton cannot be overlooked. Designed for eye appeal, quick identification and clean, crisp lines, the new outside package is a sales-impulse dream."

Paper containers for fluid milk have been transformed into scale models of railroad trains by Golden State Co., Ltd., of San Francisco. Called "Train-Tainers," the new cartons are the creation of C. E. Hale, the company's sales and advertising director. They include 12 different pieces of rolling stock from diesel locomotives to passenger and freight cars, printed on cartons for various types of milk products—Grade A,



HOUSES and service stations can be made from these sturdy corrugated cartons adopted recently by the Norbest Turkey Growers Assn. of California and Utah for pre-packaged turkeys.



Vitamin D and Golden-V quarts as well as buttermilk, chocolate drink quarts, etc. A Golden State motor truck is imprinted on the half-and-half pint carton and a platform wagon on the table cream half-pint. The company's cottage cheese tubs may be used as station houses and water towers.

The trains are easy for the child to assemble by merely notching the lip of one container top and partially splitting the bottom end of the carton.

Dealers are provided with broadside promotional pieces and also a Golden State Lines Railroader Guide describing how "free ownership" of the railroad may be acquired, how to build the trains, how to use railroad language and signals.

The first week the "Train-Tainers" were introduced, the company said, salesmen were reporting orders for complete product lines in stores which had stocked only a partial line before. All dealers were giving the new packages conspicuous display space.

Also on the West Coast, Norbest Turkey Growers Assn. of California and Utah is using corrugated containers for pre-packaged turkeys, appropriately designed and color printed so that the kids can later turn them into doll houses and garages.

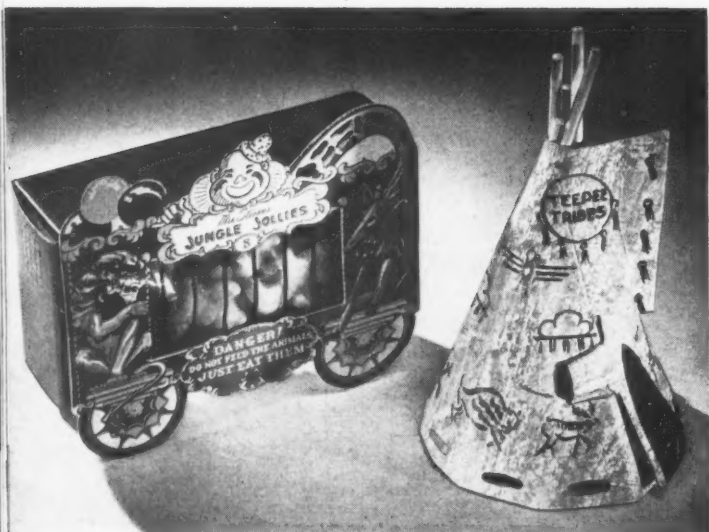
The confectionery packaging field, of course, is a natural for designing packages that appeal to the children. With greater competition among the makers of lollipops and other confectionery novelties, more

thought is being given to package presentation—first for appeal to the grown-ups who are attracted to an impulse purchase and, secondly, for appeal to the kids when they receive the packages.

Two interesting examples are the circus wagon and Indian teepee adopted by Holiday Sweets, Inc. The circus wagon packed for Mrs. Stevens of Chicago has been named "Jungle Jollies" and contains a variety of candy animals in an ordinary straight-tuck carton with three extra panels which provide a section that can be die cut and folded up under the box to provide the wheels. The cut-out top section is designed for protection in shipment. In knock-down form or when set up, the cartons can be arranged to stagger one over the other, thus protecting the edges.

The teepee, printed with Indian symbols, is made in two pieces, one scored to form the wigwam shape, the other a notched disk which fits into die-cut slots in the base. The teepee holds lollipops, the sticks of which protrude through the smoke vent, thereby giving a realistic effect to the construction. This package has had wide appeal as a souvenir item in variety stores, particularly in vacation areas associated with Indian lore.

New Orleans Confections, Inc., Chicago, have adopted a pirate theme for their "Treasure Pops Chests." The gay-colored, aluminum-foil-wrapped lollipops may be seen through cellophane windows of an irregularly shaped carton decorated with full-color

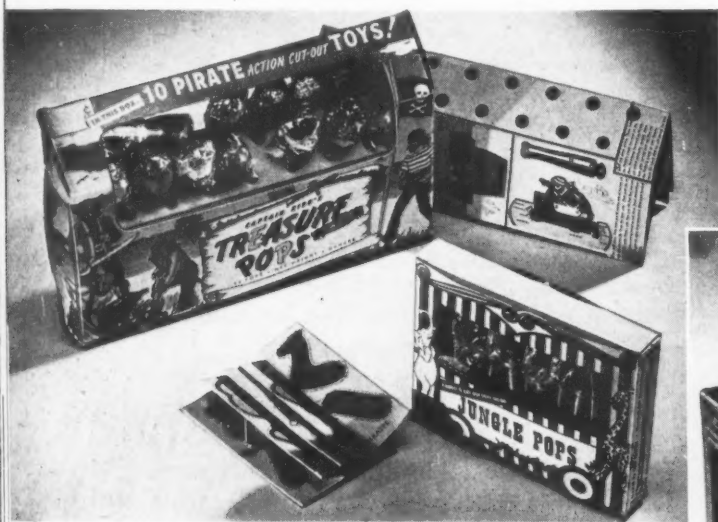


WHEELS of circus wagon for candy animals are provided by three die-cut and scored panels on a straight-tuck carton which are folded under the box. Teepee with lollipop sticks extending through smoke vent is formed with notched disk that fits into slots provided in the base.

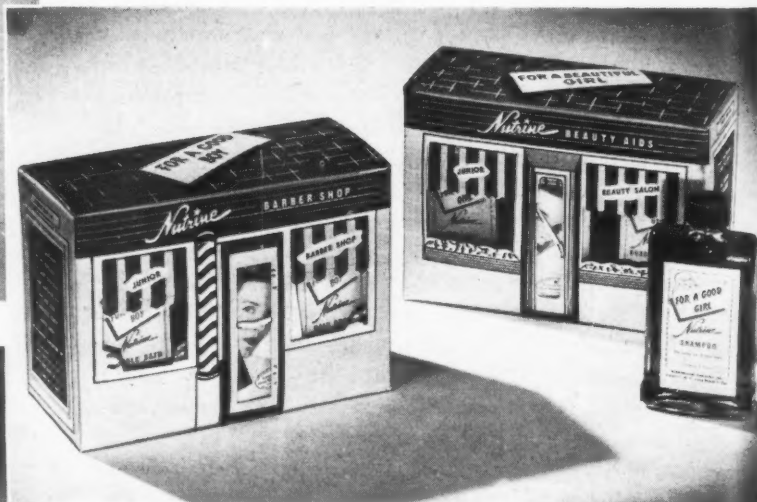
pirate illustrations. The inner platform holding the lollipops is printed with 10 action cut-out toys which the child can make. This same company also puts out a smaller toy-utility package called "Jungle Pops." The outside resembles a circus wagon. An accordion fold of paperboard, which provides individual inside partitions for the pops, is printed with animals and clowns that can be cut out.

Children's cosmetics and toiletries offer another opportunity for using packages that can be toys. Nutrine toiletries for boys and girls have been put in simple folding cartons—but the cartons are printed to be re-used by little boys as miniature barber shops and by little girls as beauty shops. The effect is achieved by the use of a printed design resembling a roof and walls of a building, cellophane windows resembling shop windows and doors. Products are visible through the windows.

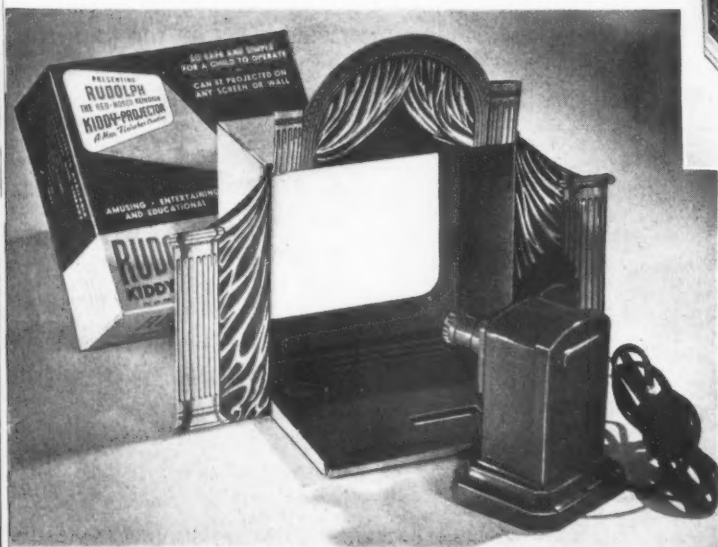
The toy industry has immeasurable opportunities for using the carton as part of the toy. A small hand-operated plastic projector, for instance, complete with lens, electric bulb and cord and selling for about three dollars, becomes much (Continued on page 158)



INNER PLATFORMS and partitions of paperboard are printed with cut-outs for child who receives these toy-utility packages for lollipops.



CHILDREN'S TOILETRIES have ready acceptance when the package for boys is a barber shop and the package for little girls, a beauty salon.



TOY MOVIE THEATER is formed when this Max Fleischer Rudolph Kiddy Projector is taken out of package and carton base turned on its side.

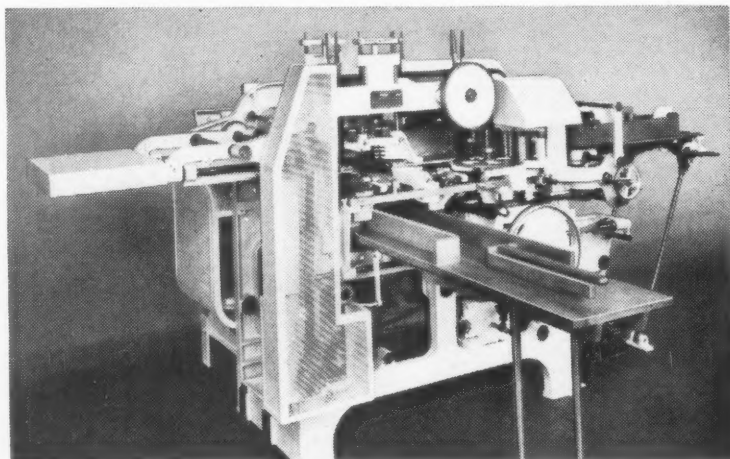
Toiletries
by **KINGS MEN LTD.**

Folding Cartons
by *Burt*



F. N. Burt Company Inc. • The World's Largest Manufacturer of Small Set-up Boxes • 500-540 Seneca Street, Buffalo 4, New York
Offices in Principal Cities — Or Write Direct • Canadian Division: Dominion Paper Box Co. Ltd., 469-483 King St. W., Toronto, Canada

new Cost Reducer



MODEL F-10-J **BUNDLING MACHINE** for small-sized packages

Machine bundling has proved to be a most effective way to reduce costs—and is being adopted by a steadily growing number of manufacturers. This new machine is designed especially for those whose products come in comparatively small-size packages. It is only two-thirds the size of our standard F-10 model.

Using strong kraft paper, the Model F-10-J bundles packages in dozen or half-dozen lots. Quickly adjustable for numerous sizes, a single machine may be used to bundle an entire line. Packages may be stacked in a variety of combinations. Printed end-seals are cut from a roll, and applied automatically. Closely packed and tightly sealed, the bundle is strong and compact—withstands handling surprisingly well.

Makes Many Welcome Savings

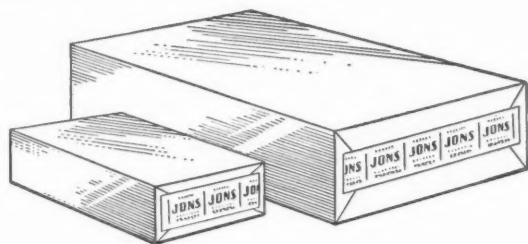
Machine bundling eliminates the need for costly cardboard boxes . . . Saves up to 60% on material costs alone! Bundling paper weighs less than boxes; therefore shipping costs are reduced. Moreover, the problem and expense of storing quantities of boxes is eliminated. And, since one operator can turn out up to 24 bundles per minute on the Model F-10-J, substantial savings are also made on labor costs.

*Get the complete details on this proven cost-reducer
from our nearest office today.*

PACKAGE MACHINERY COMPANY

Springfield 7, Massachusetts

NEW YORK CHICAGO BOSTON CLEVELAND ATLANTA DENVER
LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D. F.



**Quickly adjustable for
various sizes**

**Bundles cartons in dozen
or half-dozen lots**

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines



TECHNICAL

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Charles A. Southwick Jr. • Technical Editor

Polyethylene permeability—II

MORE DATA ON THE TRANSMISSION CHARACTERISTICS OF THE VARIOUS MATERIALS

COMMONLY PACKAGED IN POLYETHYLENE BAGS AND BOTTLES. By J. H. Parlman*

When polyethylene became available for commercial uses, a widespread interest soon developed in the use of polyethylene bottles and bags for the packaging of liquids. It shortly became evident that there was a particular lack of data on the permeability of liquids through polyethylene. Therefore, in the fall of 1947, the Plax Corp. began investigating this problem. This testing has been carried on since then.

The results of the first investigations were published in the summer of 1948 (1).† Up to that time, most of the work was done along theoretical lines. Since then more emphasis has been placed on the practical use of the basic data. Much of the more recent testing has been on the permeation of various materials actually being considered for packaging in polyethylene bottles and bags.

Review of previous work

The method of testing now used is the same simple bag test as previously described with one slight exception. Instead of placing the bag flat on a suspended wire screen during the test run, the bags are now hung vertically from a wire or small glass rod. It is believed that better reproducibility is obtained because of better control over the vapor and liquid phase variable. The bags are approximately half filled with liquid. Present results are still comparable with results as obtained with the older method.

In this method of testing, 30 cc. of liquid are heat sealed in 6-in.-length bags made from approximately 1.7-in. layflat width seamless extruded polyethylene tubing of about 0.0017-in. wall thickness. Repeated weighings are made and loss of weight is plotted vs.

time. The average rate of loss is obtained from the slope of the curve and the permeability is expressed as gms./24 hrs./100 sq. in./0.001-in. film thickness at room temperature.

Permeability rates have been established for 36 polar liquids and 12 non-polar liquids.

The permeation of molecules through a polyethylene barrier is considered to be an activated diffusion process in which the permeating molecules first dissolve in the film, then diffuse through the film from the region of high concentration to the region of low concentration and finally evaporate from the outside surface.

It was found in general that the more polar a molecule is, the slower is its transmission rate. Also, molecules having greater size are transmitted more slowly.

An empirical method for predicting the approximate transmission rates of liquids containing only hydrogen,

This is a continuation of the work presented by the same author in these pages in July, 1948. The new data include a modification of the testing method and additional valuable permeability ratings for various liquids alone and in product mixtures. The information covers both film thicknesses and molded sections of polyethylene such as are found in the familiar blow-molded bottle.

* Technical Sales, Plax Corp., Hartford, Conn. From a paper delivered before the Fifth Technical Conference of the Society of Plastics Engineers, Inc., Philadelphia, Jan. 21.

† Numbers in parentheses refer to "References" appended.

oxygen and carbon was described. It was found that if log permeability rate, $\log P$, is plotted vs. $\log (\epsilon - n^2)l^2$, an essentially straight line is obtained. ϵ = dielectric constant at low frequencies and 20 deg. C.; n = index of refraction; l = boiling point in deg. C.; ϵ , n and l all apply to the permeating liquid. The method does not apply to non-polar materials, and liquids containing halogens or nitrogen are transmitted faster than would be expected.

As the temperature is increased, the rate of transmission is also increased. Actually the rate of transmission is roughly doubled for every 7 to 14 deg. C. rise in temperature. Temperature seems to have more effect on slow transmission materials than on fast ones.

The permeation is approximately two to four times as fast from the liquid phase as from the vapor phase. That is, a bottle three-quarters full will tend to lose weight by permeation faster than when it is only one-quarter full.

The transmission rate of liquids through polyethylene was found (2) by Myers and Phillips to be inversely proportional to the film thickness for various polar and non-polar solvents. Fig. 1 gives plots of film thickness vs. transmission rate for trichloroethylene, high-octane gasoline and xylene. A special inverted cup method was used.

New data

Table I gives permeability values for 12 liquids including 30% hydrogen peroxide, both exposed and not exposed to light, and also for water when permeating polyethylene film having both hydrophobic and hydrophilic surfaces; also the values of P for camphor, a solid, and xylene sulphonic acid, a mixture of solid and liquid.

Table II gives permeability values for 25 special commercial products. Of these, 22 are liquids, two are creams and one is a solid. For the most part, these materials are commonly encountered trade-name products.

Interpretation of test data

Permeability data of the type discussed here are most useful when they can be used comparatively. However, inasmuch as this data was obtained by a test method which is new and rather different from other permeability tests commonly used, it is somewhat difficult to interpret P (permeability) values in terms of the suitability of polyethylene as a package. This may be made clearer by converting the permeability value, P , for water into terms of per cent loss of weight for a 4-oz. Boston round polyethylene bottle for one year shelf life at room conditions. Such a bottle has roughly 20 sq. in. of surface area and a wall thickness of 0.040 in. will be assumed. The bottle would contain approximately 120 gms. of water.

P for water at room temperature is 0.16 gm. per day per 100 sq. in. per 0.001 in. thickness.

$$0.16 \times 365 \times \frac{1}{40} \times \frac{20}{100} = 0.29 \text{ gm. H}_2\text{O lost per year}$$

$$\frac{0.29}{120} = 0.0024 \text{ and } 0.0024 \times 100 = 0.24\% \text{ or about } \frac{1}{4}\%$$

Thus the percentage loss in weight through the walls of the bottle would be about $\frac{1}{4}\%$ per year.

In a series of tests run by Dr. A. H. Warth (3) polyethylene cap liners were, for the most part, suitable for liquids having P values of 2.0 or less. This is understandable when it is realized that a permeability of 2.0 would be approximately equivalent to a 3% loss in weight through the walls of a 4-oz. polyethylene bottle over a year's time.

Oils

Oils present an interesting example of a special permeability case.

It will be noted that all of the highly viscous liquids such as mineral oil, lubricating oil and oleic acid in Tables I and II have low permeability rates. When an attempt is made to run the standard permeability bag test on these liquids, it is soon evident that there is permeation taking place, because the outside surface of the bag has an oily coating. However, the actual loss in weight over a long period of time is very low. A possible explanation of the oily surface, with low actual loss in weight, is that the liquids dissolve without difficulty in the polyethylene, diffuse outward rather slowly because of the large size of the molecule, but then cannot evaporate easily from the outer surface of the bag because of the very slow evaporating nature of the diffusing molecules. The concentration of diffusing molecules soon becomes nearly equal across the thickness of the film and the diffusion rate is then lowered. Once the film becomes essentially saturated, the oil can

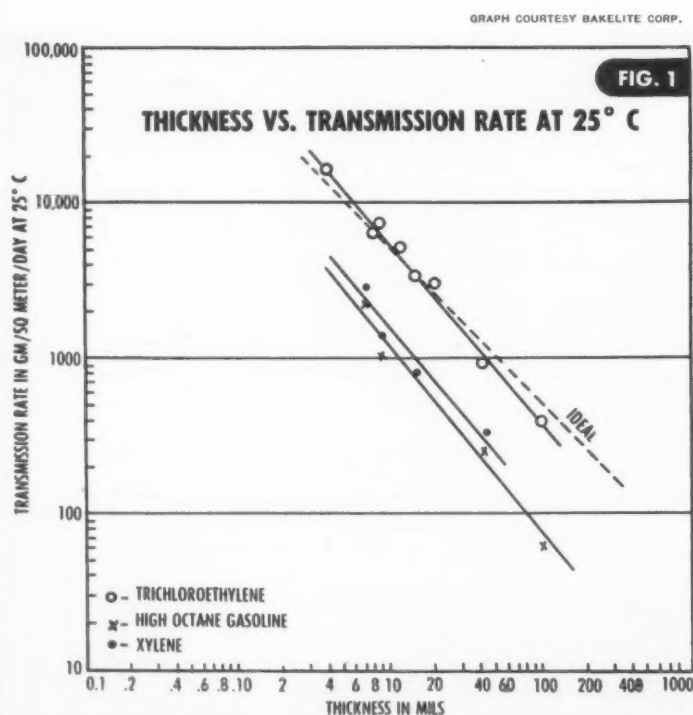


TABLE I—PERMEABILITY VALUES
Permeability in gms./24 hrs./100 sq. in. for film 0.001 in. thick (at room temperature)

Material	Permeability
1. Xylene sulphonic acid (mixture solid and liquid)	0.045 (gain in weight)
2. Mineral oil	0.007
3. Lubricating oil SAE # 10	0.009
4. Oleic acid	0.011
5. Hydrofluosilicic acid (H_2SiF_6 —26%)	0.072
6. HNO_3 (69%)	0.16
7. Hydrogen peroxide 30% (not exposed to light)	0.176
8. Hydrogen peroxide 30% (exposed to light)	0.352
9. Camphor (solid)	0.19
10. Water (hydrophobic surface)	0.189
11. Water (hydrophilic surface)	0.192
12. 95% ethyl alcohol	0.55
13. HCl (36%)	0.58
14. Ammonium hydroxide 26%	1.83

no longer dissolve in the film readily. Thus the whole process of permeation is slowed and the loss in weight is low. However, when these oils are placed in polyethylene bottles, no oily film can be felt on the surface of the bottles. This would tend to confirm the above explanation. The bottles have wall thicknesses of 25 to 35 times those of the bags used in the permeability test. The rate of diffusion in the case of the bottles is reduced to less than the rate of evaporation and therefore no oily film collects on the bottles.

Mixtures

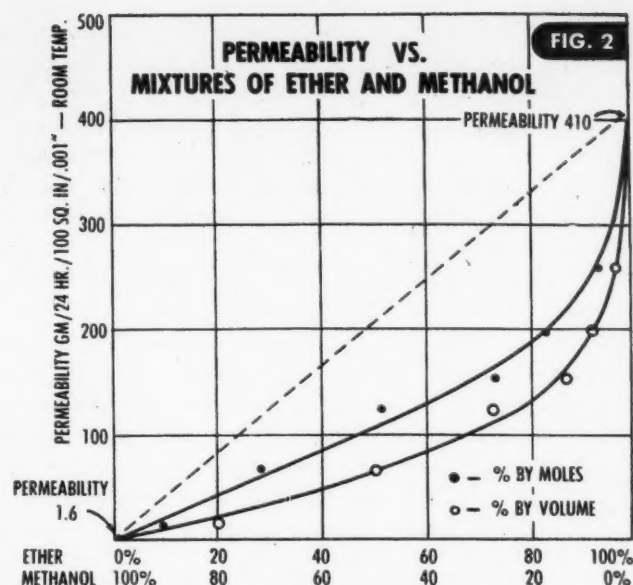
The permeation of liquids which are a mixture of two or more materials furnishes a problem both important and formidable. As a matter of fact, it is rarely that interest is encountered in packaging a 100% pure liquid in polyethylene.

However, some tests have been carried out on the basic nature of the problem. Fig. 2 shows a plot of P vs. mixtures of various percentages of diethyl ether and methyl alcohol by moles and by volume. Ether alone is transmitted at 410 gms./24 hrs./100 sq. in./0.001 in., while the rate for methanol is 1.6. It will be noted from the graph that any given mixture is transmitted slower than the averaged rates of the two liquids. This is particularly true when there is a small percentage of methanol present with the ether. P for a 97% ether 3% alcohol mixture is 257, or only 63% of the 410 ether rate.

In a number of instances, permeability rates have been determined for the finished commercial product—the mixture—and also for the various ingredients. One such "permeability analysis" is given below for a hair perfume:

Material	P
Finished product	0.17
Vehicle (isopropyl palmitate)	0.087
Essential oils (present in 3.2%)	1.3

Any investigation of the permeation of mixtures of liquids through polyethylene must not only consider the over-all average loss in weight over a period of time, but



DOTTED LINE is drawn between the 100% ether permeability rate of 410 and the 100% methanol permeability rate of 1.6 and indicates the weighted average permeability rates. This is the theoretical line which would be obtained if the transmission were proportional to the percentages present of each of the ingredients.

TABLE II—PERMEABILITY VALUES (SPECIAL COMMERCIAL PRODUCTS)
Permeability in gms./24 hrs./100 sq. in. for film 0.001 in. thick (at room temperature)

Material	Permeability
Chlorinated diphenyl oil	negligible
Bath salts (solid)	0.004
Baby oil	0.008
Baby oil antiseptic	0.027
Naphthenic base oil	0.050
Coiffure lacquer	0.15
Foam shampoo	0.16
Medicinal cream (room temperature)	0.16
(50 deg. C.)	2.5
Hair perfume	0.17
Dental cream	0.18
Imitation maple flavor (alcohol base)	0.20
Hair dressing	0.21
Oil shampoo	0.24
Liquid dentifrice	0.36
After shaving lotion	0.47
Deodorant cologne	0.56
Iodine lotion	0.56
Cologne #3	1.0
Cologne #1	1.1
Household air refresher (ethyl alcohol base)	1.8
Cologne #2	2.1
Mixture: chlorinated diphenyl and chlorinated benzene	4.9
Soil fumigant (chlorinated aliphatic base)	8.0
Rust preventative (pine oil base)	32.0
Mixture: carbon tetrachloride, dibromomethane, monochloro-monobromo methane (in unknown per cents)	600.0

also the amount of each component which is permeating. This, of course, involves a quantitative analysis after each permeability test. Acids and alkalis offer promising materials for this type of testing because of the ease of analysis through simple, accurate titrations.

The permeability factor for hydrochloric acid (HCl) was determined both by the standard bag test and also by carrying out the test in a closed desiccator containing calcium chloride.

In the standard test carried out open in the laboratory, 35.85% HCl had *P* value of 0.580 gm./24 hrs./100 sq. in./0.001 in. Titration with an alkali indicated that the acid remaining in the bag after a 22-day test was reduced to 33.16% and that the 0.580-gm. permeability rate was composed of 0.521 gm. of HCl and 0.059 gm. water.

In the test on 35.80% HCl carried out in the desiccator, a *P* value of 0.715 was obtained. After a four-day test the percentage HCl was 35.42%. Titration showed that the 0.715 was made up of 0.476 gm. HCl and 0.239 gm. water.

It is believed that the difference in permeability rates within and without the desiccator is due to the fact that the desiccator contained calcium chloride, which maintained a very low moisture content in the air surrounding the bags, while the bags in the open room were in an atmosphere containing a considerable percentage of moisture. Therefore the difference in concentration of water on the inside and outside of the bags was greater when the test was carried out in the desiccator and water tended to be lost from the bag at a greater rate. Also, the desiccator, being closed, would fill with HCl vapors and lower the difference of concentration of HCl on the two sides of the bag and thus lower the rate of transmission of HCl.

A 10-day permeability test was run on 26% ammonium hydroxide (NH₄OH). At the end of the test, titration with acid indicated a 20% concentration of NH₄OH. The average *P* value for the mixture was 1.83 gms./24 hrs./100 sq. in./0.001 in. The 1.83 gms. was made up of 1.69 gms. ammonia plus 0.14 gm. water. In this case the permeability rate of 0.14 compares favorably with the rate of 0.16 for pure water. Another way of looking at the transmission of ammonium hydroxide through polyethylene is that about 92% of the lost liquid is ammonia and 8% is water.

Special cases

Table I indicates a *P* value of 0.352 for 30% hydrogen peroxide (H₂O₂) when exposed to light and 0.176 where not exposed to light, or exactly twice as great a rate when light is present.

H₂O₂ tends to break down into water and oxygen in the presence of light and therefore it is believed that when the test is carried out in light, oxygen is released and is transmitted more rapidly through the bags than either water or H₂O₂. Theoretical considerations indicate a permeability value for pure H₂O₂ even lower than water, while it is known that oxygen is transmitted relatively rapidly through polyethylene. The weight

of oxygen released when H₂O₂ breaks down into water and oxygen is about 47%.

It may be noted from Table I that it apparently makes little difference whether the surface of the polyethylene bag is hydrophobic or hydrophilic. Values of 0.189 and 0.192 are well within the expected accuracy of the test.

Polyethylene in its natural extruded form is hydrophobic—absorbs almost no water. However, polyethylene may be oxidized and made somewhat hydrophilic by treating with strong chromic acid for a short period of time at room temperature. In this treated form it holds very much less static charge and many common cements seem to adhere well to it. It is believed that this oxidation takes place only at the surface and the almost negligible difference in permeability rates between treated and untreated material would tend to confirm this belief. In this test only the inside of the bag was treated.

Further work

As further testing is conducted, it becomes more and more evident just how limited we are in understanding the many phases of the problem of liquid transfer through polyethylene. Several variables (including the presence of small percentages of impurities in the liquid) which were formerly never considered important are now known to have appreciable effect on the efficiency of polyethylene as a liquid barrier.

Further work is particularly indicated on mixtures, on the basic mechanism of molecule transfer and on the swelling of the polyethylene produced by certain types of molecules. We are able to predict the efficiency of polyethylene as a liquid barrier only very roughly without actual testing.

Valuable information on the mechanism of transfer might be obtained by running similar bag tests on other materials. However, these materials must have sufficient chemical resistance so that a wide range of types of liquids may be tested. The new polymers of monochlorotrifluoroethylene present an excellent example of an extremely chemically inert material suitable for such testing.

Also, thin films of two-directionally oriented polystyrene† can now be heat sealed and should present interesting liquid transfer data. The permeability rate for water for this polystyrene has already been determined and it is about 15 times as permeable to water as polyethylene.

Among still other materials thought to be suitable for bag tests is polyvinylidene chloride.

References

1. J. H. Parlman, "Polyethylene Permeability," MODERN PACKAGING, p. 198, July, 1948.
2. C. S. Myers and F. R. Phillips, "Permeability of Polyethylene Film and Sheet to Volatile Liquids," abstract of Report DL-32, Bakelite Corp.
3. The Crown Cork & Seal Co.—personal communication.

† Polyflex—manufactured by Plax Corp.

PATRA's package research

HOW BRITISH PACKAGERS POOL THEIR
RESEARCH IN NEW \$450,000 LABORATORY
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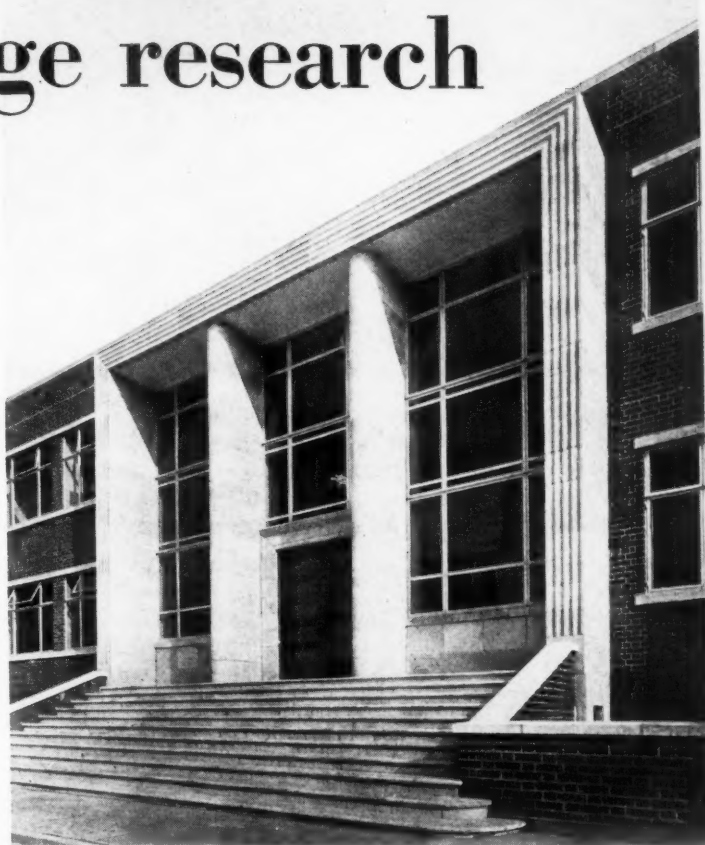
By Dr. G. L. Riddell*

In October, 1948, the Printing, Packaging and Allied Trades Research Assn. in Britain opened its new Research Center at Leatherhead in Surrey, 20 miles south of London, at a cost of \$450,000. The organization (generally known as PATRA) is financed partly by a grant from the United Kingdom Government and partly by the industries concerned in this work. Printing and packaging firms in the Commonwealth countries are entitled to join the association, which today has members in Canada, Australia, New Zealand, the Union of South Africa and India.

The work carried out at the new research center is divided into three separate parts: there is the library and information service, the inquiry laboratories and the research proper. Member firms are encouraged to ask advice on their day-to-day problems and these inquiries come in at a rate of more than 1,000 a year.

*Fellow of Britain's Royal Institute of Chemistry; Director of Research of the Printing, Packaging and Allied Trades Research Assn.

One phase of packaging in which Britain is unquestionably a step ahead of the United States is in the joint conduct of an extensive, centralized packaging research program through the Printing, Packaging and Allied Trades Assn. This report describes the new PATRA Packaging Research Center at Leatherhead and outlines its activities. Although there is no comparable activity in this country, certain PATRA reports and literature abstracts are circulated to members of the Packaging Institute here, by arrangement.



IMPOSING ENTRANCE to the new three-story PATRA research center, located at Leatherhead, Surrey, England, 20 miles south of London.

Research into the whole field of packaging, including the moisture penetration of packages, adhesives and the strength of containers, was first introduced into the work of the then Printing and Allied Trades Research Assn. in 1943, two years after its laboratories, with their equipment and technical library, had been destroyed by fire during an air raid on London.

Although the association's scientists were obliged to work in cramped and temporary quarters—wherever laboratory bench space could be found—some progress was made with the research in the succeeding years.

Today the packaging research program of PATRA covers three main points:

1. To improve the protection afforded by the package against mechanical damage.
2. To determine and improve the protection afforded by packaging materials and packages against outside influences such as (a) water vapor, (b) various liquids, including water, oil and fats, (c) gases—such as air, oxygen, nitrogen, carbon dioxide.
3. The prevention of insect and mold attack.

Little if any fundamental research has hitherto been carried out (in Britain) on the protection afforded by the package against mechanical damage and the manner in which the research association is tackling this work is therefore of special interest. Obviously this research must deal with the strength of the container itself and



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with the protection which it will give to its contents.

The first stage is to study the nature of the shocks to which a package is subjected in various forms of transport. There are many variables in this problem and statistical charting will be necessary. The knowledge thus acquired at first hand will then enable the kinds of hazards which affect containers to be related to the laboratory tests to determine whether the testing mechanisms in the laboratory reproduce the actual conditions and the extent to which they do this.

This operational research will provide the tools for the job, which cannot be provided by a straightforward laboratory approach to the problem. Members of the packaging research staff must make their observations on the spot, acquiring essential knowledge from studying the handling of packages in all forms of transport—rail, road, sea and air—by following up the package in its journey from manufacturer to its final destination. Correct sampling is important in this work. It may also be necessary to develop shock-measuring devices which can be included in sample packages sent out on actual journeys, we believe.

It is this operational or field investigation and the information which it provides, which will give us the basis for scientific study of the relationship between the materials and the strength of the container and the relationship of the design of the container to its strength. Container contents are another factor for study.

Water-vapor protection

Another line of research deals with the problem of finding out what protection is afforded by various packaging materials against the penetration of water vapor and establishing the mechanism by which water vapor penetrates packaging materials and then improving their resistance to penetration.

Packages must also be considered and research is being made into the protection that various kinds of packages afford and into the water-vapor penetration requirements for packages according to the commodities

which they contain and the conditions under which they are stored. This will lead to the devising of methods of improving the resistance of packages to water-vapor penetration.

Similar lines of attack are being developed to determine the protection given by various kinds of packaging materials against penetration by liquids and the mechanism of liquid penetration is being studied so that materials and packages can be improved to meet this.

The same methods are also being used to study protection against gases, but particularly in relation to air, oxygen, nitrogen and carbon dioxide.

In the research association's entomology and mycology laboratory, insects and mites of the kinds known to attack packages are bred and tests are being made of the resistance afforded by packages both untreated and treated with various kinds of insecticides. This research is aimed at enabling recommendations to be made for the best technique to minimize insect attack.

Progress is also being made on the prevention of mold attack by maintaining an adequate collection of mold cultures and exposing treated and untreated packages and materials to mold infection.

Among the first results of PATRA's work on the measurement of water-vapor permeability is the preparation of what is hoped will become the standard method of measurement in Britain. Packaging Research Report No. 2 of October, 1948, by two members of the research staff, B. L. Ginsborg and A.C. Poulter, describes "The PATRA tentative standard method for the determination of the permeability to water vapor of sheet materials used for packaging at temperate and tropical conditions."

Packaging research laboratories

A large room in the basement of the three-story research center at Leatherhead has been equipped for the mechanical testing of packages. The equipment already installed includes rotating drums, a drop-test apparatus and an inclined-plane tester. A compression tester and a vibrator are also being installed.

This laboratory is conditioned to 65% relative humidity and the temperature is kept at between 65 and 70 deg. F. to provide approximately constant conditions for the research and testing work.

Inside this laboratory there is a variable-humidity container-conditioning room which is designed to enable containers to be conditioned to other than the laboratory conditions for mechanical testing. The operation range of this room is approximately 32 to 140 deg. F. and 15 to 95% relative humidity. Part of the equipment for this purpose is housed in the room and part in the adjacent plant room. Humidification is by water spray and dehumidification by admitting outside air and by the use of silica gel. Heating is by electricity and there is refrigeration available for cooling.

On the ground floor there is a laboratory designed for the research on permeability. Inside this large laboratory there are two small rooms. One of these is conditioned as a variable high-temperature room and is used

for storage trials and other work carried out at high temperatures. It operates at controlled conditions which can be varied between 65 and 140 deg. F. and 10 and 95% relative humidity. As with the container testing laboratory, humidification is by spray, dehumidification by chilled water and silica gel, and heating by steam.

The other small room is a constant high-temperature room fitted with simple equipment to maintain constant tropical conditions of 100 deg. F. and 90% relative humidity. In this room humidification is by steam, heating by electricity and temperature control is plus or minus $\frac{1}{2}$ deg. F.

Among the equipment in this room is the apparatus for the measurement of water-vapor permeability. This method, however, is not sufficiently sensitive for determining permeabilities below one gram per square meter per 24 hours, so special apparatus has been devised and installed in this laboratory to measure low rates of permeation. In order to study the behavior of water-vapor barriers at low temperatures, a refrigerated bath has been installed which can maintain constant temperatures down to minus 25 deg. C.

In this laboratory there is also equipment for making accelerated tests of the shelf life of a package. Such tests are particularly necessary where there is a considerable period between the packing and the sale of a commodity, and the accelerated test is itself being tried out by PATRA and in members' laboratories.

This laboratory also contains heat-sealing equipment, including an apparatus specially designed to cope with the special requirements of certain films; equipment used in determining the gas and vapor penetration of materials and relative-humidity measuring methods.

A "make-up" table and other equipment for the production of experimental types of containers and packages is installed in another laboratory on the same floor. This can, of course, be connected with research into the strength of containers, already described.

Report on progress

In PATRA's annual report for 1947-48, I made reference to the research into the mechanism of vapor and gas penetration: "This long-range investigation has so far led to the measurement of the permeability of four grades of polyethylene by hydrogen, oxygen, carbon dioxide and nitrogen over a range of temperatures (10 to 40 deg. C.) and pressures (10 to 140 millimeters). Preliminary experiments have also been made with water vapor as the permeating gas. This work has been suspended temporarily in order to concentrate more manpower on the shorter range problems associated with water-vapor relations of completed packages."

On the liquid and grease penetration, I reported that attention has so far been concentrated on devising a simple method of testing the liquid water resistance of boards and similar packaging materials. This test would have to be simple enough to appeal to relatively unskilled users with limited equipment and also be one that would correlate well with practical performance.

The first requirement provided no special difficulty, but there was apparent variation in ideas on the functions of waterproofness. "For example, while the function . . . is obvious for packages containing soluble materials, such as sugar or fertilizer, its function in the case of paper sacks might be more related to the general reduction in strength associated with water soaking."

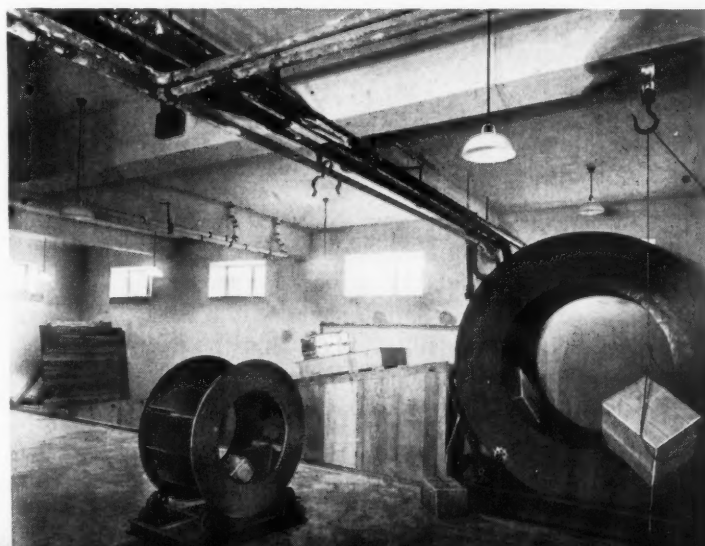
The testing methods selected use, in principle, an indicator which changes color when water or a solution applied to the underside of the material being tested has penetrated it.

A new item on the program of packaging research is concerned with rust inhibition. Studies are being made of the rust-inhibiting properties of sodium benzoate impregnated papers containing also various proportions of sodium chloride. Many papers contain traces or even appreciable quantities of chlorides and while the rust-inhibiting qualities of sodium benzoate have been confirmed, it has not yet been possible to establish the exact relation between the quantities required for the purpose in the presence of sodium chloride. This work is also being carried on with tinned iron—important because of the possibility of inhibiting the rusting of labeled tinned-iron cans.

In addition to the work on the research program already outlined, PATRA is to set up a package-testing station for the routine testing of packages of all kinds. It is anticipated that this department will be in operation before summer of 1949. PATRA also maintains an extensive technical library on packaging, the staff of which is responsible for the compilation of "Packaging Abstracts" each month, copies of which are made available in America through the Packaging Institute.

The British Printing, Packaging and Allied Trades Research Assn. has only just recently entered its new laboratories. Much equipment has yet to be installed and more research workers have to be recruited, but we feel that both manufacturers and users of packages have in PATRA an organization which is doing useful work in solving many technical packaging problems.

MECHANICAL TESTING of container strength and product protection is the function of a large basement laboratory. This is supplemented by observation and sampling of packages in the field.



Questions and Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 122 East 42nd St., New York 17, N. Y. Your name or other identification will not appear with any published answer.

Testing cans for corrosion prevention

QUESTION: We purchase large numbers of lithographed black-iron cans. The bottom and top rings are not lithographed, but instead are lacquered to prevent rusting, as is the inside of the container. Once in a while we have a serious rusting problem on the outside of these containers. Our storage for these containers doesn't seem to be the cause, for we have kept similar cans for periods of over two years. Our problem actually involves only the outside of the can, for the inside coat may be widely different, depending on the type of material which is to be put in the can. Can you suggest how we can test such cans as we receive them and also write proper specifications to keep this from occurring in the future?

ANSWER: Your problem of rusting on the outside of coated black iron can be due to several causes and can be difficult to control and prevent.

In general, there are a great many possible combinations of chemical and surface treatments and the number and type of applied coatings. The more complex the chemical and mechanical treatment of the surface and the heavier and more resistant the coatings, the higher the price and the better the performance (i.e., resistance to corrosion) can be.

The best way to determine your requirements is to set up performance tests based upon these factors:

1. Your various products as possible corrosive agents.
2. The tops and can bodies as fabricated and sent through abnormal handling (i.e., abrasion) in shipping and storage.
3. The exposure of your filled cans to typical corrosive atmospheres.
4. Sample tops and bodies with various treatments and coatings for comparison with your present cans. *

You should get general specifications and costs for various combinations of treatments and coatings and then put these samples through a standard salt-spray or other corrosion test recommended by the can maker.

With the results of these tests compared to your present can, you should consider the various factors mentioned and come to a decision on the level of corrosion resistance required by your cans with your storage conditions and with your products in typical market and use conditions after normal fabrication, filling, storage

and shipment. A comparison of costs will be necessary to keep the cost of the package in line.

A reproducible corrosion test is a better way to determine performance and develop a proper specification than to depend upon coating weights, pinhole counts and other specific and detailed means.

Plastic liners for steel drums

QUESTION: Is there on the market a polyethylene liner suitable for use in a liquid-tight steel drum and provided with means of filling and using the container without removing the cover?

ANSWER: There is a great deal of development work being done to find ways and means of fabricating plastic liners for inclusion into steel or fibre drums. There are, however, a great many problems in connection with this development. So far, polyethylene appears to have interesting possibilities for this use, but other plastics are being tried. There are additional problems in including such a plastic liner in either steel or fibre drums. It is probably only a question of time when such liners and drums containing them will be available, but at the moment there does not appear to be any commercial production of such items.

Elimination of static on acetate wrappers

QUESTION: We have trouble with static on acetate wrappers during very cold weather. The static makes it hard to operate our sheeter and also gives trouble in the wrapping operation. Can you advise us on this problem?

ANSWER: Static is always increased during cold weather because the humidity of the air is lowered and the static charges accumulate. It is not always convenient or desirable to humidify the packing room or parts of your machines. The quickest and easiest way to solve the static problem is to put a so-called "static-eliminator" on your machines at several points in the operation. Usually such an eliminator at the point where the roll unwinds will solve all static problems.

"Static eliminators" are substances or simple electrical means which ionize the air and so dissipate the static charges. Their installation is simple, their cost low, their maintenance nil and their results gratifying.

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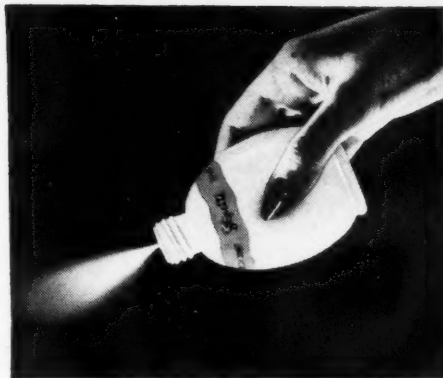
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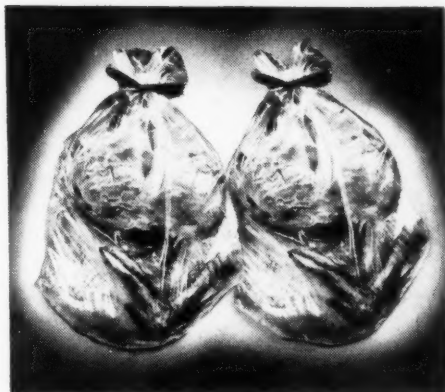
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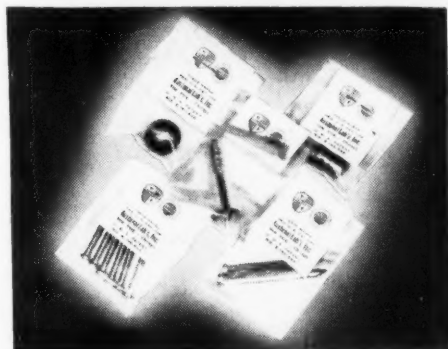
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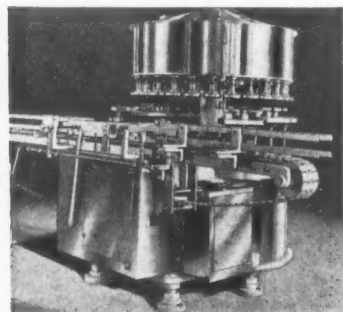
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VERSATILE HIGH-SPEED FILLER

The Crown Cork & Seal Co., Baltimore, Md., is introducing its new Gem G. P. filler for still liquids ranging



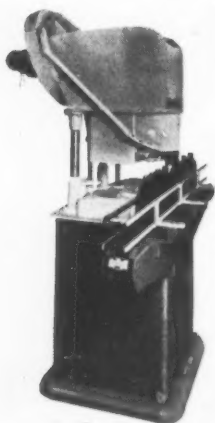
from light to semi-fluid types. This versatile 26-spout filler, supplied with or without vacuum, is adjustable for a range of bottle and can sizes from 4 oz. to 1 gal. and for flasks and jugs within this size range. Fast and dripless filling is claimed for such products as

mineral waters, wines, liquors, insecticides, fruit juices, oils, catsup, apple butter, applesauce, etc.

LABORATORY COATING AND LAMINATING MACHINE

Haida Engineering Co., Long Island City, N. Y., has developed a new patented coating and laminating machine for laboratory use, described as particularly suited for experimental work with thermosetting coatings and laminants. It is said to coat or laminate paper up to 10 in. wide. The amount of coating is regulated by an interchangeable rotating equalizer and the coating is smoothed out by a smoother bar. An electrically heated, thermostatically controlled oil heater provides predetermined temperatures up to 400 deg. F.

SCREW CAPPING MACHINE



Tite-Cap Machine Co., Inc., New York, announces a single-head automatic straightaway screw capper with a new type of automatic hopper and chute assembly for selecting and delivering closures to containers. Caps are delivered at a greater speed than normally required, thus assuring an adequate supply in the chute. Plastic and metal caps of all shapes and sizes up to 70 mm. are handled. A new type of chuck handles the plastic caps and an adjustable tension device prevents breakage while tightening.

CONTOUR SPRAY STENCILS

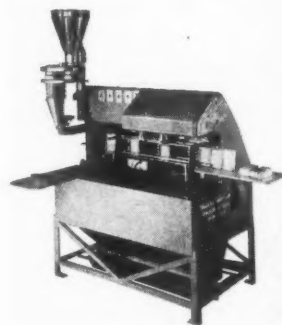
For decorating and marking concave, convex and irregularly shaped objects, Adolph Gottscho, Inc., New York, is producing Contour spray stencils in various gauges of brass and copper. Custom made for all types of containers and products, they are reported to leave no halos or ragged edges.

DRY SPRAYER FOR LETTERPRESS AND OFFSET

Payne & Craig Corp., New York, has a new Junior Model G34 of the Craig Dri-Spray designed for automatic intermittent spraying, for letterpress and offset, of sheet sizes up to 34 by 48 in. The spray tube is mounted on the rear jogger wing and sprays the entire sheet evenly under low pressure. Its transparent tank permits the operator to see the supply of powder which can be refilled and regulated while in operation on the press.

BAG FILLING AND SEALING MACHINE

Niagara Packaging Machinery Corp., Buffalo, N. Y., announces a new semi-automatic bag filling and sealing machine which handles free-flowing products such as



beans, peas, coffee, cookies, etc., filling them into bags which are then automatically folded and heat sealed. Any type of heat-sealing cellophane, foil, Pliofilm or thermoplastic-coated paper bag may be used. Occupying a floor space of approximately 15 sq. ft., this machine requires one operator to open the bags, hold them on the spout of the filler and then

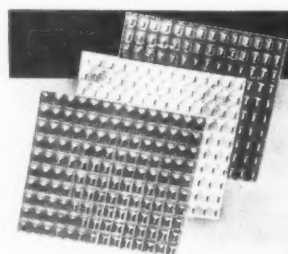
set them into position in the machine. The machine may be set to run 20 to 40 complete packages per minute. Minimum bag size handled is 1 by 2 by 5 in.; maximum, 3 by 6 by 12 in.

BOX WRAP DESIGNS

Donrico Designs, New York, at a showing held at the Vanderbilt Hotel recently, presented to the trade 24 unusual designs for box wraps, prepared by their staff of artists in New York and Paris. These are being offered to the cosmetic, hosiery and allied industries. The designs are printed exclusively by their affiliated company, J. Makowsky Corp., New York, well known for its distinctive fine-quality production.

PLASTIC DISPLAY MATERIAL

Gustave Rubner, Inc., New York, offers a new three-dimensional display material of molded plastic sheet that has unusual reflective qualities. The flexible sheets, 10



by 10½ in., are made up of 140 baguet diamond shapes and are available in 12 colors. The material may also be obtained in strips of one, two, three or four rows. These Gem-Plaques may be shaped to fit curves and irregular surfaces or affixed to flat surfaces. The full-sized sheet

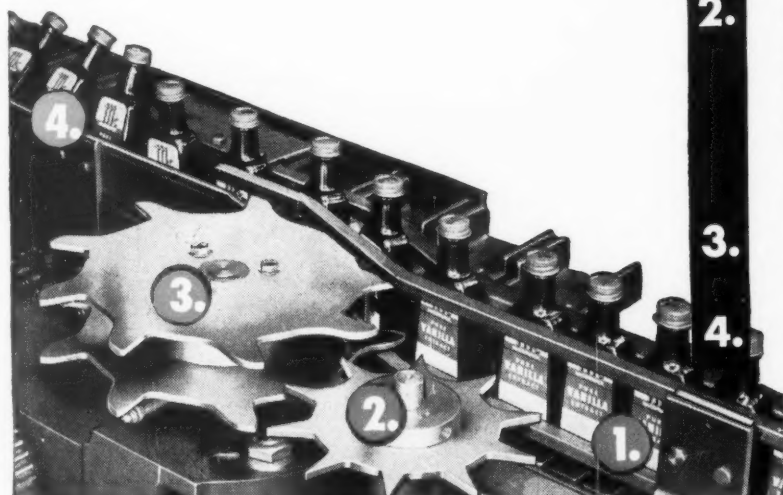
ONLY THE *Finest* CARTONER CAN GIVE YOU THE *Lowest* CARTONING COST

As your product reaches the cartoning operation, manufacture is complete. All subsequent handling must safeguard the investment in labor and materials made up to that point.

Jones Cartoners are unique in their method of handling bottles, jars and vials as they are received from the proceeding station. In smooth-flowing constant motion, they are separated, brought into correct timing, and placed in loading position.

Regardless of shape or size, the transfer is made gently, positively. The use of two starwheels eliminates the clash-bang of intermittent operation. Even at speeds of 200 per minute, the transfer is smooth, unhurried, quiet. Breakage and stoppages are reduced to the vanishing point.

Dual starwheel transfer is one of many Jones superiorities that give you lowest cartoning cost. Compare your present cartoning methods with Jones Cartoning. Write today for complete information.



1.

Bottles are delivered upright by the labeling machine to the infeed conveyor.

2.

Separator starwheel gently takes one bottle from the line and feeds it, in correct timing, into the transfer starwheel. Should a bottle arrive lying down, the cartoner automatically stops. No chance to break a bottle or damage machine.

3.

Transfer starwheel and guide rails gradually move bottle from infeed to bucket conveyor.

4.

Bottle is gently laid horizontally in buckets ready for loading into carton.

See the Jones Cartoner in action!
Booth 519, 1949 National Packaging Exposition
Atlantic City, May 10-13

R. A. JONES & COMPANY, INC.

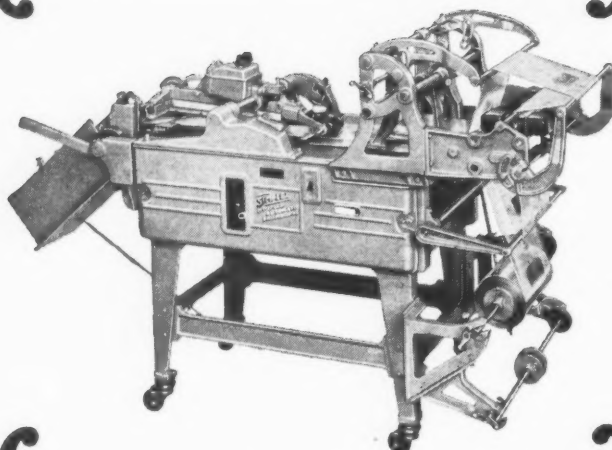
P. O. Box 1295

CINCINNATI, OHIO

THE MAJORITY OF AMERICA'S CARTONED PRODUCTS ARE JONES CARTONED

INCREASE PROFITS

*By Making
Your Own Bags!*



Nearly every business is run for profit. We increase efficiencies, reduce costs, speed production—all to make a greater profit. Now, if you use bags in substantial quantity, there is a handsome profit slipping through your fingers if you do not make your own. There might be even more profit in bags than in your own products.

Simplex Hi-Speed Automatic Bag Making Machines handle all of the thermo-plastic coated materials in rolls up to 30" wide and turn out up to 5000 heat-sealed bags per hour in sizes up to 12" x 20". Buy plain or printed roll stock and make your own—get the quality you want—control your inventory—don't depend on anyone for delivery of bags.

Tell us the sizes of bags you use and the quantities, and the prices you pay, and we will submit some interesting figures to you. It's a promise. Write us today.

Simplex

WRAPPING MACHINE COMPANY

534 23RD AVENUE · OAKLAND 6 · CALIFORNIA

Equipment and Materials

(Continued)

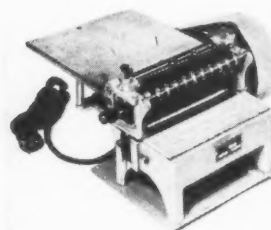
has an invisible tacking hole in each corner and additional holes can be drilled.

IMPROVED LABEL PASTER AND SCREW CAPPER

Scientific Filter Co., New York, has made several improvements in its Whirlwind electric label paster which render all parts easily removable for inspection and cleaning.

A system of dual glue rollers has been substituted for the ordinary scraper knife and this is said not only to make for better control of glue application, but also to eliminate the tendency of the labels to curl, wrinkle or blister. Stainless steel pickers are especially shaped to repel glue and permit quick removal of the labels. The machine is designed to handle the smallest labels of paper, light paperboard and cloth up to 6 in. in width, embossed paper labels or metal seals. Thermostat control is provided for the mechanism.

Mounted on suspension springs to pro-



At left is redesigned Model B Whirlwind screw capper. Improved electric label paster is shown at right.

vide flexibility for hand operation, the Model B Whirlwind screw capper, formerly mounted only with foot-lever-operated stand, now tightens from 30 to 60 caps per minute, depending upon the operator. The new arrangement permits the handling of plastic and metal caps from 15 to 89 mm.

CONTAINER EXTRUDES "CREAMY" PRODUCTS

The General Cap & Container Corp., New York, has developed a new type of dispensing container consisting of a polyethylene sac inside a rigid cylinder, with a ratchet



arrangement which permits the user to twist the sac and remove as much of its contents as is desired. It is said to yield as much as 99% extrusion of such products as tooth paste, cosmetic creams, pastes, waxes, etc. This "Twistube" dispensing con-

tainer is reported to take and dispense any material of cream consistency ranging from light to heavy.

Simultaneously this company is introducing another product called the "Twistube" cap which, it is claimed, eliminates leakage and spilling. The skirt of this cap is adaptable to any type of round opening. It is constructed of three parts—a movable concave top and a fixed convex base which firmly sandwich a movable shutter



EYE STOPPER

That's the effect a Dennison Designed seal gives your package. It has that something extra — the result of constructive imagination, designing talent, accurate selection of materials, incomparable operative team-work... This is one example of the extra value that Dennison Designed merchandise offers your company. For samples and suggestions appropriate to your product, call or write nearest Dennison sales office.

Dennison

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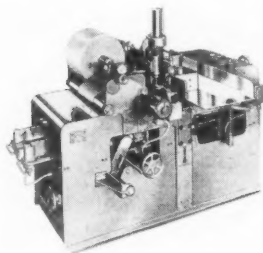
Equipment and Materials

(Continued)

and between which an area of tension is created. Both dispensing container and cap, designed by Lippincott & Margulies, Inc., New York, industrial and package designers, are fully protected by patents.

IMPROVED PAPER PACKAGER

A number of improvements of the Morpac paper packaging machine, based primarily on simplifying construction,



operation and maintenance, have been announced by Lynch Corp.'s Package Machinery Division, Toledo, Ohio. This machine is designed to wrap or band ream paper, tablets and pads, loose-leaf fillers, books, etc., and will handle packages up to 5 in. deep, 10 in. wide and 14½ in. long. One operator

can wrap up to 1,000 packages per hour, saving 30 to 40% per package on wrapper application, it is claimed.

NEW TRADE NAME

"Cry-O-Rap" is the new trade name for the bags, made by Dewey & Almy Chemical Co., Cambridge, Mass., which are used in their Cry O Vac process for the protection of frozen and refrigerated products.

PLUNGER-TYPE FILLER

The Sprague-Sells Div. of Food Machinery & Chemical Corp., Hoopeston, Ill., has developed a 20-pocket plunger-type filler for liquids and semi-liquids for such products as



baby foods, applesauce, oil, etc. Provided with either a chute feed for cans or a belt feed for glass jars, this machine will handle a range of sizes from 2⅛ to 4⅞ in. in diameter, up to 1 qt. capacity and 2⅝ to 5⅝ in. in height variations. It is designed for normal speeds up to 450 cans or jars per minute.

PROCESS FOR MULTIPLE-IMAGE PRINTING PLATES

Users of multiple-image printing plates for labels, small cartons, book matches, wrappers, etc., will be interested in a new process developed by Midwest Step-and-Repeat Service, Omaha, Neb. The same or varied subjects are duplicated on photographic film as often as desired and either positive or negative films are produced, depending on printing-process requirements. After master negatives or positives—one for each color—have been made, exposures of these are made in a machine on which stops have been set with micrometer precision in a step-and-repeat pattern at required intervals. Since the same machine settings are used for each exposure on all film in the color set, perfect register of the final plates is assured.

MARCH 1949

CASE HISTORY #2

The Co., National Distributors of imported food products, desired consumer packaging for one of their bulk imports.



Plant conditions had to meet most stringent standards for cleanliness and supervision.

The product required humidity control for proper handling.

Edlaw was contacted—a trial run was arranged—and a permanent line has been in production for the past year.

Customer has renewed contract for the year 1949.

Memo to

Contact
The Edlaw
Co. →

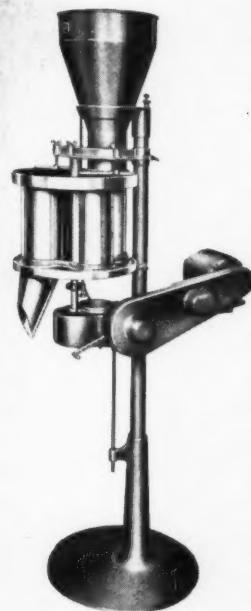
**Contract
Packaging**

**AT PRE-DETERMINED
COST**

**88-61 76th AVENUE
GLENDALE, L. I., N. Y.**

FILLMASTER VIBRATORY FILLER

Nationally known firms have chosen this unit because of the trouble-free vibratory feature which improves their weight accuracy and filling speed on dry and semi-dry products, such as cereals, candies, pop corn, nut meats, bread crumbs, seeds, spices, tea, coffee, (all grinds), powders, cake mixes, fresh and frozen peas, etc.



Gram fraction to 10 pounds
3 to 120 fills per minute
No bridging
No breakage of delicate products
Inexpensive
Noiseless

Height adjustable for placing over conveyor
Also available:
Product Settling Table
Automatic Container Feeder Attachment

STUYVESANT ENGINEERING CO.

107 Stuyvesant Avenue

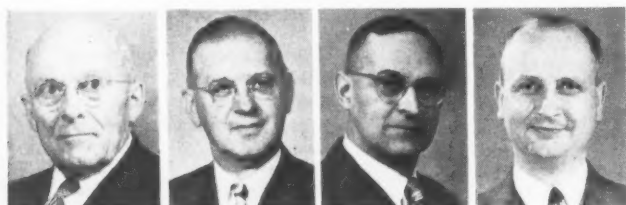
Lyndhurst, New Jersey

REPRESENTATIVES IN PRINCIPAL CITIES



Plants and People

The **Arthur Colton Co.**, Detroit, makers of pharmaceutical and special packaging machinery, announce the following changes in their official family: **F. X. Roellinger**,



F. X. Roellinger A. W. Kath N. Carman K. A. Panitz

resigned as secretary; **Alfred W. Kath**, vice president in charge of engineering; **Nelson Carman**, vice president for sales; **Karl A. Panitz**, vice president for production.

The Industrial Products Sales division of **The B. F. Goodrich Co.** has become the Industrial and General Products division and now includes the plastic products sales and production departments. **E. F. Tomlinson** is division general manager. **Clyde D. DeLong** has been named manager of the plastic product sales department, which will be moved from Akron to Marietta, Ohio. Also going to Marietta will be **N. P. Singleton**, handling packaging markets. **L. H. Chenoweth** will remain in Akron on special assignments for the plastics department.

First unit of the new \$3,000,000 general chemicals manufacturing plant of **B. F. Goodrich Chemical Co.** at Avon Lake, Ohio, is scheduled to start operations in the second quarter of this year. New plasticizers for vinyl and synthetic resins will be the first products to be made there.

Harvey C. Hopkins, general manager of purchases since 1944 for **American Can Co.**, New York, has been named vice president in charge of purchasing and traffic, assuming the duties of the late Albert R. Pfeltz.

A. C. Staley, Jr., formerly American Can's sales manager for the metropolitan New York district, has been promoted to assistant general manager of sales.

W. J. Alford, III, has been named president of **Alford Cartons Division of Continental Paper Co.**, Ridgely Park, N. J. Mr. Alford, who has been executive vice president of Alford, continues as manufacturing manager of Continental.



W. J. Alford, III

R. V. Bradley has been named sales manager of **Chase Bag Co.**'s Eastern Paper Bag Division. Mr. Bradley's headquarters will remain in the Chase New York City office and his former duties as manager of the New York City sales office will be taken over by **W. J. Newhouse**. **James W. Wells** is now sales manager at Portland, Ore.

The **D. L. Ward Co.** has acquired the Philadelphia branch of **Sanitary Products & Paper Co.**, formerly owned by **Crown Zellerbach Corp.**

Edwin J. Fitzpatrick has been appointed executive vice president of **Industrial Tape Corp.**, New Brunswick, N. J.

Robert E. Crotty, manager of the New York City office of **Heminway Corp.**, makers of set-up boxes, has also become sales representative for the **Tech-Art Plastics Co.** of Long Island City, N. Y.

Gaylord Container Corp., St. Louis, Mo., has announced the appointment of **R. S. Updyke** as general manager of the Milwaukee operations, **Glenn B. Elliott** as sales manager and **Emil Fredericks** as plant superintendent.

The **White Cap Co.** has announced the appointment of **John C. Swift** to the newly created position of general sales manager. **George P. White** remains as vice president and sales director.

M. E. Barthen has been named assistant to **Wayne Young**, president of **The Ohio Boxboard Co.**, Rittman, Ohio. **J. M. Kernan** replaces Mr. Barthen as general superintendent of the company's Carton Division.

E. D. Bowes of the New York sales staff of **Kimble Glass Division, Owens-Illinois Glass Co.**, has been named manager of the Kimble branch office in Philadelphia. **H. L. Carlson** of the Boston office will move to New York and **W. C. Eddy** will transfer from New York to Boston.

A new, greatly enlarged plant for the production of shipping boxes has been opened by **National Container Corp. of Pennsylvania** at 4219 Torresdale Ave., Philadelphia.

Marathon Corp., Menasha, Wis., manufacturers of food packages and protective packaging materials, has begun construction of a new plant in Wausau, Wis., for the production of paperboard food packages.

New staff appointments by the board of directors of **Cambridge Paper Box Co.**, Cambridge, Mass, are **Everett F. Young**, vice president in charge of the Providence branch, and **Ernest A. Price**, sales manager.

Herman Liberman has been named field engineer for **Paisley Products, Inc.**, New York and Chicago manufacturers of industrial adhesives.

Art de Angelis, plastic consultant, has moved to new offices in the Packard Bldg., Philadelphia.

Rusling Wood, Jr., is now with the New York office of **Ketterlinus Lithographic Mfg. Co.** of Philadelphia as sales and service representative.

Acme Steel Co., Chicago, recently conducted an inspection tour of its newly completed \$2,500,000 five-stand tandem cold strip mill, located at the company's Riverdale plant.

Stokes & Smith Co., Philadelphia, now a wholly owned subsidiary of **Food Machinery & Chemical Corp.**, has announced the appointment of **Carl E. Schaeffer** as general sales manager in charge of both paper box and packaging

SUCCESSFUL GIFT PACKAGE — IN CORRUGATED

At the H & D Package Laboratory, leather and wood and linen patterns are often simulated in corrugated board. Distributors of specialty items, are capitalizing on H & D ingenuity and craftsmanship to sell merchandise. Relatively inexpensive, distinctive in appearance, rugged in construction, these H & D corrugated boxes are a complement to the highest quality products.



**PRODUCT
QUALITY**
is reflected by
The Package



FAMILY NAME FEATURED in "Look-Alike" Packages

Quick, easy identification and selection are important where the same product is made in several sizes and several models. Automotive parts, for example, win greater dealer acceptance when the packaging plan includes simplicity, legibility and convenience. The H & D boxes shown here effectively display the manufacturer's name, conserve shelf space, give necessary product information, simplify inventory-taking, require no repackaging, provide ample product protection.

FLUORESCENT LIGHTS Shipped Safely in CORRUGATED BOXES

A complicated problem of packaging fluorescent fixtures—odd-shaped, bulky, fragile—has been solved with an H & D engineered box which has reduced the entire packing operation to a mere 70 seconds! An ingenious arrangement of six interior pieces of corrugated board provides more than ample protection. The packed product can be stacked and loaded and shipped as safely as any other type of merchandise—thanks to H & D package engineering.



**H&D
BOXES**

FOR MORE INFORMATION WRITE

HINDE & DAUCH
Authority on Packaging

Executive Offices: 4903 Decatur St., Sandusky, Ohio

FACTORIES IN:

Baltimore 13, Md. • Buffalo 6, N. Y. • Cutham, Ontario
Chicago 32, Illinois • Cleveland 2, Ohio • Detroit 27,
Mich. • Gloucester, N. J. • Hoboken, N. J. • Kansas
City 19, Kansas • Lenoir, N. C. • Montreal, Quebec
Richmond 12, Va. • St. Louis 15, Mo. • Sandusky, Ohio
Toronto, Ontario • Watertown, Mass.

MAKE BAGS FAST

Up to 10,000 Per Hour

- Fast changeover time
- For small and large quantities
- Low operating cost



The "Chieftain"—new Modern Clipper machine—represents a brand-new design in bag-making machines. It makes flat and square bags of all heat-sealing materials; cellophane, Pliofilm, foil and plastics—with a speed and efficiency never before equalled. No skilled operator is needed. Easy to operate, precise and economical. Has center seam gluing and duplex bag making attachments.

HEAT SEALS

Because a proper heat-seal keeps out and keeps in all atmosphere, it gives you *certain* sift-proofing and leak-proofing. There is no seal that can compare with a heat-seal for protection . . . no machine that can rival the "Chieftain" for versatility and high-speed operation.

MODERN CONTAINERS CO.

3220 E. Olympic Blvd.

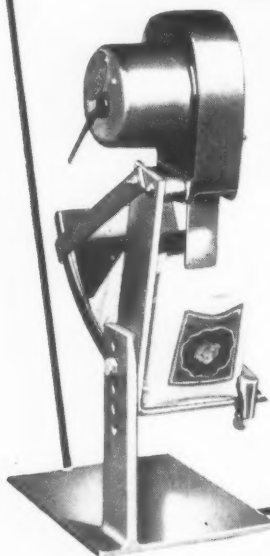
Los Angeles 23, Calif.

Faster...

**AT BAGGING PRODUCTS
AT BAGGING PROFITS**

LOW IN COST EASY TO USE

Designed to handle bagged products with a minimum of effort at a maximum speed. Simple adjustments for height . . . tilting forward or backward enables operator to set machine at easiest position. Stainless steel trough with capacity of 200 bags. Adjustable to bag sizes. Blower keeps bag clean and free from foreign matter.



Send today for
Bulletin No. 3-29



ANDERSON BROS. MFG. CO., ROCKFORD, ILLINOIS

Plants and People (Continued)

machinery. **G. F. Twist**, formerly manager of Food Machinery's plant at New Haven, Ind., has been named division manager at Philadelphia.

Anderson-Barngrover Division of Food Machinery & Chemical Corp., San Jose, Calif., will now represent Stokes & Smith on the Pacific Coast and in the Mountain States.

Union Bag & Paper Corp. has announced the election of **Alexander Calder, Jr.**, **James L. Knipe** and **T. T. Dunn** as vice presidents of the company. Mr. Calder and Mr.



Left to right, A. Calder, Jr., J. L. Knipe and T. T. Dunn.

Knipe will have their headquarters in the New York office, while Mr. Dunn will continue at Savannah, Ga.

The Ottawa River Paper Co., Toledo, Ohio, has announced plans for construction of a completely modern corrugated box plant on Dort Highway, Flint, Mich.

Paul L. Karstrom Co., Chicago, has transferred operations to 1822 W. 74th St., with expanded facilities for the production of the company's Spee-Dee filling machines for dry products and intensified distribution of heat-sealing and packaging equipment.

Robert Gair Co., Inc., has purchased the business and properties of **M. S. Dowd Carton Co.**, Groton, Conn., to be operated in conjunction with the folding carton department at Gair's Montville, Conn., mill. **Lloyd E. Gallup**, former president of Dowd, will join Gair's folding carton sales staff in New England.

J. D. Malcolmson, director of Products Development at Gair, has announced the appointment of **Alan G. Lynn** as his assistant. Mr. Lynn will conduct packaging surveys in customers' plants. **Thomas E. Cathcart, Jr.**, is now Gair's New England sales manager for folding cartons.

Peter Partition Corp., Brooklyn, manufacturer of cardboard partitions, has appointed **Burbank & Co.**, San Francisco, as its sales representative for Northern California.

Following the closing of American Coating Mills' operation at Memphis, Tenn., **Jay C. Bruce**, formerly manager of the plant, has joined his brother, **Parker Bruce**, in a new firm incorporated as the **Bruce Carton Co.**, 1221 Empire Ave., Memphis. The company will manufacture paperboard cartons, packages and set-up boxes. **American Coating Mills**, a division of **Owens-Illinois Glass Co.**, continues to maintain a sales office there.

Frederick A. Krause & Associates, plastic molders, have moved from Chicago to Frenchtown, N. J.

The General Products Division of **The Goodyear Tire & Rubber Co.** has announced that managers of Pliofilm sales in New York, Cleveland, Atlanta, Dallas, Los Angeles and Chicago will become district managers in charge of sales



Something New in "store windows"...



Envelopes—with windows of optically clear Kodapak Sheet—provide a wealth of new possibilities for protective counter display.

Windows made of this brilliant, highly transparent plastic sheet display merchandise in true colors and textures... keep it clear, fresh, free from shop wear. Kodapak Sheet is tough and durable, too... gives excellent protection against fingering and handling.

Kodapak Sheet is made in two principal forms:

Kodapak I, cellulose acetate, in gauges up to 20 thousandths (0.020"). Kodapak II, cellulose acetate butyrate, in gauges up to No. 200 (0.00200").

If you want to learn more about this packaging material, the Kodapak Demonstration Laboratory in Rochester is available to demonstrate fabrication possibilities and practical end uses.

Cellulose Products Division

Eastman Kodak Company, Rochester 4, N. Y.

FOR THE DISPLAY YOU WANT ... THE PROTECTION YOU NEED

Kodapak Sheet

"Kodapak" is a trade-mark

Kodak

THE LAST WORD IN ANILINE PRINTING

Picture a press with these outstanding features

- Rigidity throughout
- Built in drying and cooling system
- Central throw-off for all colors
- Continuous running inking rollers
- Double friction rewinder
- Slitting attachment
- Surface rewinder available
- Sheeting equipment available
- Splash-proof Anilox inking units

Manufactured by W. & H.

H. H. HEINRICH, INC.

200 VARICK STREET, NEW YORK 14, N. Y.

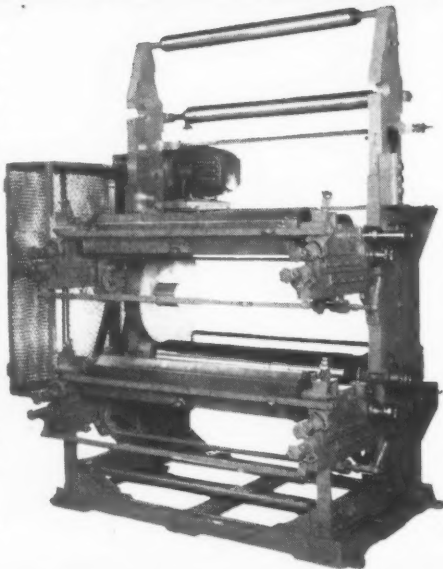
TWO & THREE COLOR ANILOX PRESS

Precision engineering and rugged construction insure the constant, dependable superiority of this machine. Minimum maintenance expense yields maximum working efficiency. You are assured continuous, smooth operation without any lost time due to breakdowns.

Designed with built-in construction advantages, this perfected Two and Three Color Anilox Press assures steady, trouble-free production.

Speed — over 800 feet per minute without splash.

Press can be connected by archway to Slitter and Rewinder.



WRITE FOR FREE
FOLDER TODAY

MANHASSET MACHINE COMPANY

MINEOLA, NEW YORK

Plants and People (Continued)

activities in Airfoam, vinyl films and the builders' supplies and flooring lines, as well as Pliofilm. Elevated to the new posts are **W. J. O'Keefe**, New York; **R. H. Kilgore**, Cleveland; **T. D. Strickland**, Atlanta; **R. T. Huffman**, Dallas; **A. E. Grundy**, Los Angeles; **J. B. Post**, Chicago. They will report to **E. E. Ellies**, assistant general manager.

Also announced by Goodyear are appointments of new district sales managers for the Chemical Division: **Donald E. Neese**, New York, and **John W. Bear**, Philadelphia.

Shellmar Products Corp., Mt. Vernon, Ohio, has announced the appointment of **Edward F. Burke** as Eastern Division sales manager. Mr. Burke will be in charge of direct sales personnel except in the greater New York area, which will continue under the supervision of **J. Kersten**.



E. F. Burke

Syntron Co., Homer City, Pa., makers of materials handling equipment, have opened two new sales offices, one in Houston, Tex., under the management of **W. C. Leasure** and the other in Dallas, under the management of **Nelson C. DeVilling**. Also announced by the company are the following promotions in sales personnel: **Dick McHale**, district sales manager of the Los Angeles office; **James B. Barth**, Pittsburgh sales staff; **G. R. Stocum**, Chicago sales office; **D. E. Nugent**, power tools sales in Kansas City.

King & Anderson, San Francisco, have been appointed exclusive representatives for **Knapp Mfg. Co.**, Los Angeles.

For the third successive year, **Gordon Cartons, Inc.**, Baltimore, Md., this spring will give cash awards to students of the Maryland Institute whose entries in the Annual Carton Design Contest have been judged outstanding.

Under a plan of reorganization and relocation announced by **E. I. DuPont de Nemours & Co., Inc.**, sales under the Industrial Division of its Plastic Department will be handled only through three main regional offices in New York, Chicago and Los Angeles. District sales offices in Boston and Detroit will be maintained as subdivisions.

Frank H. Stohr has been named general manager of the **Allis-Chalmers Mfg. Co.'s** Norwood Works. Mr. Stohr succeeds **R. W. Davis**, who will continue in an advisory capacity to the general manager.

Joseph Stoneking has been appointed advertising and sales promotion manager of **The General Box Co.**, Chicago.

Benj. C. Betner Co., bag manufacturers, Devon, Pa., have opened a new branch plant at Paris, Tex.

Mason-Keller Corp. announces the establishment of an individual-unit contract packaging plant at Roseland, N. J. **Arthur M. Keller**, formerly with **Linde Air Products Co.** and **Watson Flag Machine Co.**, is president.

J. A. Lacey has been named New York City representative for **Cincinnati Industries, Inc.**, makers of paper and textile products, Cincinnati, Ohio. **L. W. Krehnbrink** is now plant superintendent.

VERSATILE . . . clean, clear impressions on any type of printing paper

FULL-BODIED . . . rich, impressive reproductions every time

UNIFORM . . . guaranteed uniformity in color and body



FOR A

Good Job
EVERY TIME

**STOP AND THINK —
SAY DRISCOLL INK!**



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MARTIN DRISCOLL & CO.

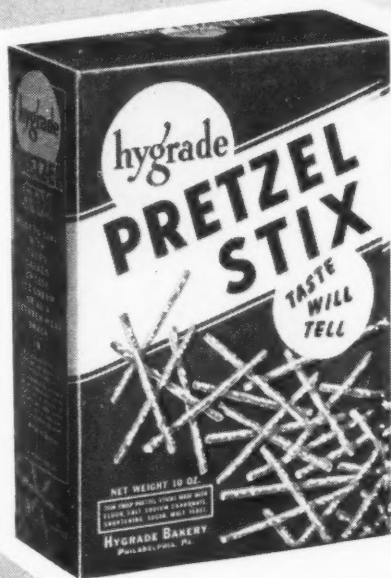
610 FEDERAL STREET, CHICAGO 5, ILL.

BRANCH: 407 E. MICHIGAN ST., MILWAUKEE, WIS.

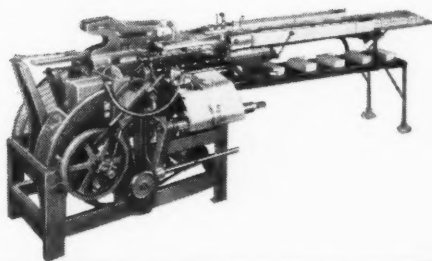
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OVERWRAPPING THAT IMPROVES APPEARANCE

Crystal clear, show window type of material, heat-sealing foil, or opaque white, printed in beautiful color combinations, look better around your carton when wrapped on the Hayssen Carton Wrapping Machine. Crisp folds, held securely in place by neat end sealing, add the final touch of attractiveness to your package. If it pleases her eye, the Shopper is more apt to buy. When you order new wrapping equipment, add your name to the rapidly growing list of satisfied Hayssen users.

Hayssen Mfg. Company Sheboygan, Wis.

Hayssen
ELECTRIC EYE
WRAPPING MACHINES

• IT PAYS TO WRAP THE HAYSSSEN WAY • • •

IT PAYS TO WRAP THE HAYSSSEN WAY •

BETTER

FASTER

MORE
PROFITABLE
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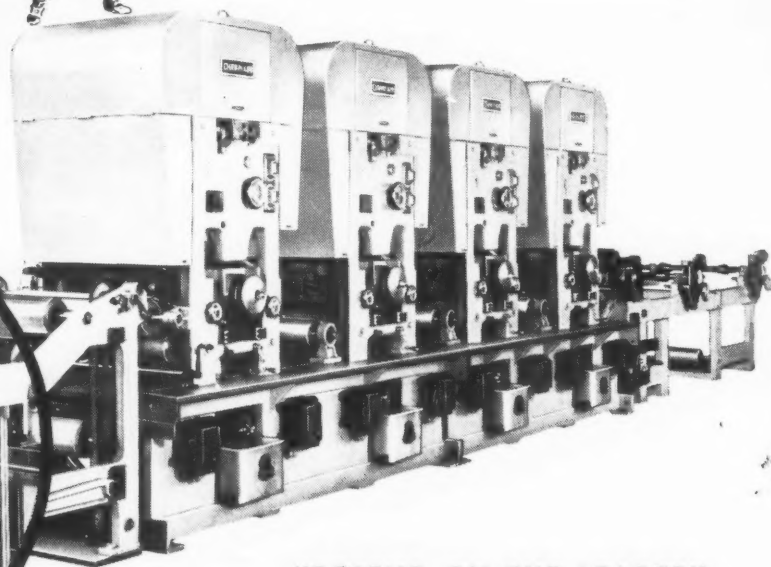
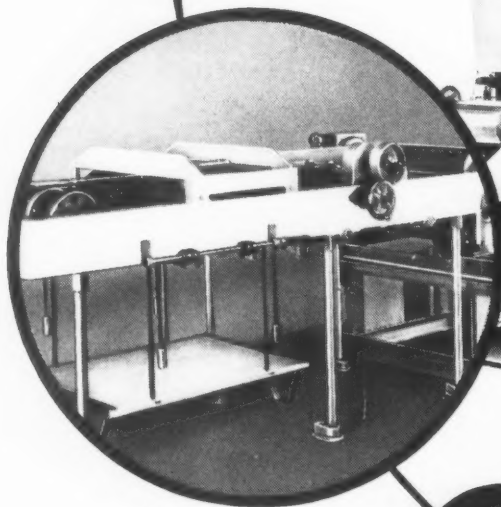
18,000
MULTICOLOR
SHEETS
PER HOUR!

You'll get printed sheets faster than ever before with a Champlain Rotogravure Press and Sheeter and you'll get them with the advantages and economies inherent with roll fed paper. Two types of delivery are possible... to a slow moving belt... or, to an accurately jogged pile. 18,000 multicolor sheets per hour with ink, instantly dried... no paper distortion and resulting loss of color register because all colors are run in one pass through the press... gloss inks and varnish in the same operation... print on one or both sides of the web with the most difficult inks. Add up those facts in favor of doing the job with Champlain rotogravure and sheeting equipment and see the difference it makes in your production figures.

Accurately square cutting to $\pm 1/64$ th inch tolerance, Champlain Rotary Sheeters handle stocks from glassine to cardboard. 360° planetary running register or "Registron" allow for push button or full electronic control of color register. Sheets are delivered cut to exact copy size. This means waste is practically eliminated. Entire cutting mechanism is adjustable for varying sheet sizes anywhere between maximum-minimum range.



Send samples of your production to us
— let Champlain show you how to do
the job—better, faster, more profitably.



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OR
PUSH BUTTON
REGISTER
CONTROL



BACKGROUND *for Elegance*



Against the richness of a BEHRLON finish, this table lighter of classic design, by Dunhill, looks what it is—the ultimate in quality.

BEHRLON, the micro-cut flock coating, is the setting which brings out beauty and drives home the sales urge for a constantly increasing number of top-flight products. Its uniform richness as a package-beautifying material is matched only by its high resistance to damage and wear. BEHRLON flock is made of the new rayon, precision-cut in two lengths ($\frac{1}{16}$ " and $\frac{1}{32}$ ") in twenty-four attractive colors, and processed for easy application mechanically or with spray guns. It is also available in ten colors of TUFKOTE BEHRLON, for coatings requiring extra mar-proof qualities.

The BEHRLON coated paper used so effectively in this Dunhill package is supplied by the Flock Embossing Corporation, 598 Broadway, New York 12, N. Y. to the paper merchant, Lowellite, Inc., 420 Lexington Ave., New York 17, N. Y.

Check on BEHRLON coatings now. Get the interesting catalog with samples in full color range. Learn how much—and how economically —BEHRLON would improve your package. For detailed information on the application of BEHRLON to your specific need, use the expert cooperation of our Products Engineering Department.

BEHR-MANNING, TROY, N. Y.



For Your Information

The panel of judges for the **1949 Box Competition**, sponsored by the **Folding Paper Box Assn. of America**, include **Edward F. Dival, Walter Stern, Miss A. R. Hahn and Harlow Roberts**. They will select the outstanding boxes for awards which will be presented at the 1949 annual meeting of the association at the Drake Hotel, Chicago, March 22 to 24. As an innovation in this year's competition, boxes will be separated into classes based on the end use of the product packaged. The 1949 meeting will open with a seminar on labor relations on March 22. General sessions will occupy the remaining two days.

The **American Designers' Institute** elected the following officers at its recent annual meeting: **Ben Nash**, president; **Henry Glass**, vice president; **Dan Jensen**, treasurer; **Ann Franke**, secretary. New board members are **Stewart Pike, Frank Gianninoto, Gordon O brig, Dan Jensen, Paul McAlister, Belle Kogan. Robert Gruen and Lionel Algoren** were elected fellows of the institute.

A survey to determine the preference among bartenders of four types of closures in whisky bottles received from distilleries was recently conducted for the **Cork Institute of America**. The survey showed that of the four types—wood-top corks, deep-skirted molded bar caps, metal screw caps and long-skirted tamperproof caps—59.2% preferred the wood-top cork. A limited number of copies of the complete survey are available at the institute, 25 W. 43rd St., New York.

A conference on the industrial use of electron tubes is scheduled by the **American Institute of Electrical Engineers** for April 11 and 12, Statler Hotel, Buffalo, N. Y.

What's doing

- Mar. 6-10—**Chicago Technical Conference and Production Show**, Hotel Stevens, Chicago.
- Mar. 20—**National Food Sales Conference** and 44th annual meeting, **National Food Brokers Assn.**, Chicago.
- Mar. 21-25—**Philadelphia Gift Show**, Benjamin Franklin Hotel, Philadelphia.
- Mar. 22-24—**Folding Paper Box Assn. of America**, annual meeting, Drake Hotel, Chicago.
- Mar. 22-25—**National Premium Exposition**, Hotel Stevens, Chicago.
- Apr. 4-6—**National Paper Trade Assn.**, Waldorf-Astoria Hotel, New York.
- Apr. 4-7—**American Hardware Mfrs. Assn.**, Palm Beach, Fla.
- Apr. 4-7—**American Drug Mfrs. Assn.**, Boca Raton Club, Boca Raton, Fla.
- Apr. 11-12—**American Institute of Electrical Engineers**, conference on the industrial use of electron tubes, Hotel Statler, Buffalo, N. Y.

New officers elected by the **Eastern Division of the Society of Industrial Packaging & Materials Handling Engineers** are: **W. Gordon Bennett**, president; **R. Chester Reed, Dr. Louis C. Barail, Jules E. Timer and John Mount**, vice presidents; **Paul H. Paulsen**, treasurer; **Frank Cohen**, secretary; **F. Robert Campbell, Walter J. Byrd, Jerome F. Gould and Mills W. Waggoner**, directors.

The fourth edition of "A.S.T.M. Standards on Paper & Paper Products" (A.S.T.M. Headquarters, 1916 Race St., Philadelphia, \$2.50) contains all of the 77 specifications and test methods on paper and paper products which have been developed through the work of several technical committees of the **American Society for Testing Materials**, particularly Committee D-6 on Paper and Paper Products. Some of the methods of test cover opacity, paraffin content (waxed paper), folding endurance, moisture, thickness, grease resistance and degree of staining. Also covered are surface wettability, bursting strength, tensile breaking strength, drop test for bags and vibration test for shipping containers.

Publications of a single pamphlet of a series of papers on the subject "What Good Are Standards?" has been announced by the **American Standards Assn.** The papers, presented at the 1948 annual meeting of the association, include discussions on the legality of standardization, standardization work of the Munitions Board and the functions of standardization in purchasing, manufacturing and marketing. Copies can be obtained from the association, 70 E. 45th St., New York, at \$1 for non-members, 75 cents for members and 50 cents plus postage for orders of 50 copies or more.

The **Forest Products Research Society**, Madison, Wis., organized two years ago to promote more efficient use of wood and other forest products, enters its third year with an outstanding record of growth—an active membership of 1,850 as compared with 1,022 a year ago. This increase, the society feels, is indicative of the desire of industry to put into practical use the latest technical developments in the field of forest products. The objective of the organization is to bring about the greatest possible interchange of information, leading to less duplication of effort in the research field.

The need for skilled personnel to handle and ship merchandise in today's expanding foreign and domestic markets led to the development of a new course in "Packaging and Packing," given by the Evening and Extension Division, **City College School of Business**, New York. The course will stress the functional aspect of packaging and packing materials. The class meets every Tuesday at 8:45 P.M. The course started on Feb. 15 and continues for 15 weeks. Total fee is \$17.50.

Users of decorative packaging papers will be interested in the beautifully bound volume, "Nouveautés 1948," published by **Keller-Dorian**, French specialists in fancy

What's new at General Mills

Advt. TONI WAVE KITS PACKAGED WITH NEW MACHINES

Four automatic machines manufactured by General Mills have been installed in the St. Paul plant of the Toni Company, makers of home permanent wave kits. Called Finished Edge Carton Formers, the new machines produce a flow of ready-to-fill cartons that has resulted in a speedup of the entire Toni packaging line.



One operator can feed the blank hoppers of several Finished Edge Carton Formers and assist with the filling operation besides.

The machines can be adapted to turn out a wide variety of carton sizes and styles, all neatly squared with sturdy, straight sides. The cartons are set up and delivered to the filling station at whatever speed synchronizes with the filling operation.

GLUING COSTS ELIMINATED ON LOCK-TYPE CARTONS



Cartons with locking ends are set up automatically at lower cost with a new General Mills machine. The Tray-Lock Machine converts flat, unglued blanks into lock-type trays and cartons at high speeds. Elimination of expensive pre-gluing results in sharply lowered production costs.

The Tray-Lock Machine produces a wide variety of carton sizes and styles. Change-over from one type to another is a simple 10-minute job of changing mandrels.

Which machine packages the Toni?

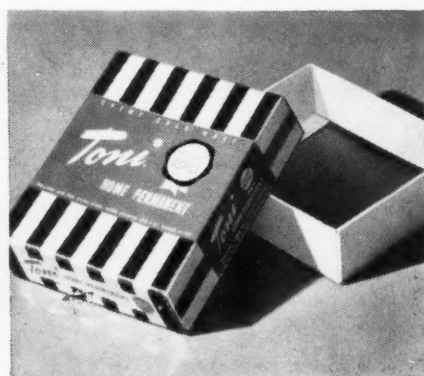
(see answer below)



Actually *both* of these Finished-Edge Carton Formers turn out Toni Home Permanent cartons. One forms the plain lower half, the other the familiar red-and-gold upper half. Both machines can attain speeds up to 90 units per minute, eliminating the bottleneck caused by slow, expensive hand methods.

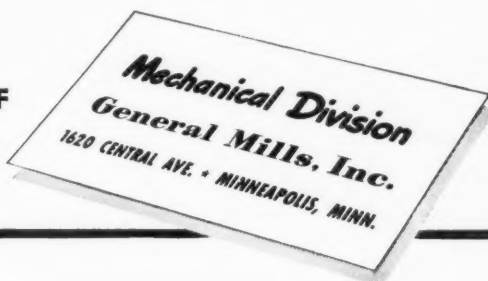


Here is one of the automatic Finished-Edge Carton Formers turning out ready-to-fill cartons at the Toni plant in St. Paul. A single operator can keep the carton hoppers filled and assist with other operations besides.

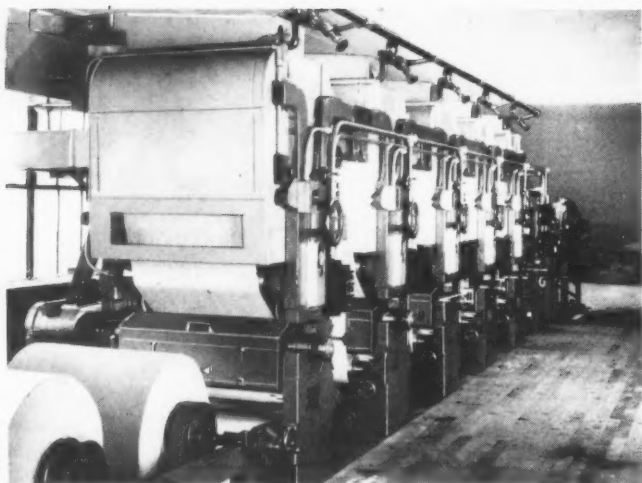


Toni is one of many national manufacturers enjoying faster, cheaper packaging with the Finished-Edge Carton Former. Write today for details of how this new machine can increase output and cut costs in your plant. Address Dept. M-39.

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WORLD'S LARGEST USERS OF
PACKAGING MACHINERY**



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Rotogravure Presses Laminating Machines

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**PROTECT YOUR PRODUCT!
HELP YOU SELL!**

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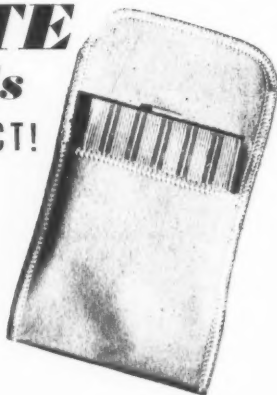
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ACCUPAC

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PACIFIC SILVER CLOTH

tarnish-proof



ACCURATE bags of attractive, colorful fabrics can help you increase your sales. Here's how . . .

- Most attractive, convenient means of protection from scratches and that sale-killing "handled look."
- The beauty you put into your product is pointed up by these handsome bags.
- They add dignified GIFT VALUE to all items.

We tailor bags to fit the size, shape and needs of an infinite variety of products from Ash trays to Zithers, Sterling to Plastic. Just let us know the size of your product and we'll be happy to forward samples. We welcome all inquiries, regardless of the quantities involved.

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For Your Information (Continued)

papers, which contains samples of a representative group of their products. Accompanying each volume is a black die-cut paperboard mask which, when placed over the samples, helps in visualizing the effectiveness of the papers for the user's specific packaging application. The book is covered with one of the firm's own ivory-colored leather-grain paper. Upon request on your business letterhead to Keller-Dorian, 15, Rue Saint-Eusèbe, Lyon, France, a copy of the publication will be sent free of charge. Also available from the company is a full-color brochure giving a history of the organization, which was established in 1888, and illustrating its present facilities.

The Illinois Institute of Technology, Chicago, is offering a graduate course in food packaging materials and methods. Consisting of 16 two-hour lectures from Feb. 16 through June 8, the course is under the direction of Lee Hickox, vice president of Container Laboratories, Inc.

Tennessee Eastman Corp. has announced the publication of the fifth edition of the technical book, "Tenite Specifications," available from the firm in Kingsport, Tenn. The book is replete with tables, charts and graphs on the physical properties of the material and results of tests conducted on Tenite.

A comprehensive manual illustrating Consolidated Freight specifications regarding furniture packaging has been published by Jiffy Mfg. Co., Hillside, N. J. Copies of this "Furniture Packing Manual" are available free of charge from the firm.

Bostitch has issued a folder, Ptg-218, describing and illustrating their new Autoclensch sealing device. Copies are available from the company, 667 Mechanic St., West-erly, R. I.

"Dealer Cooperation—The Vital Factor in Sales" is the title of a new brochure issued by Kay, Inc., 9 E. 40th St., New York, creators of point-of-sale displays. Fully illustrated in color, the brochure is available without charge from the company.

Interesting examples of visibility packaging are illustrated in a new pamphlet, "Package in Plastics," issued by Monsanto Chemical Co., Springfield, Mass. Copies are available on request to the company.

Samples of labels, tags, seals, etc., used by various companies to commemorate their business anniversaries are included in the new brochure, "How To Make the Most of Your Anniversary," published by Dennison Mfg. Co., Framingham, Mass. Copies of the booklet may be obtained on request to the company.

A simple, pocket-sized classification indicator for telling at a glance the corrugated box recommended for safe packing and shipment of articles in various weights and sizes has been prepared by The Hinde & Dauch Paper Co., Sandusky, Ohio, and is available to users of corrugated boxes upon request.

Union Special Machine Co.'s new descriptive bulletin, No. 200, gives complete information on the company's bag-closing equipment. Copies may be obtained by writing the firm, 421 N. Franklin St., Chicago.

SAY GOOD-BYE TO "ROUGH-HANDLING-LOSSES"!

New **FMC**
"NON-SHOCK" CASER



This new FMC "Non-Shock" case loading machine is speedy but "careful"; the cans are carried on end in vertical position, not rolled. There is no sharp impact of one container against another; no denting or spreading of seams in canned goods; no breaking down or other damage to contents. Even glass jars can be handled at high speeds without danger of cracking or breaking. Capacity—up to 30 cases per minute.

The machine automatically divides the incoming single line of cans, cartons or jars into four lanes, gently lifts twelve containers and places them horizontally in the loading chute to form a tier; repeats operation to form a second tier; then pushes the double tier through the loading chute into the shipping case. The filled case is then automatically lowered to a conveyor or truck, ready for the warehouse or shipping platform.

Complete Processing, Canning and Packing Equipment

The most modern line of machinery needed by canners and packers of all foods and specialties is illustrated and described in the latest FMC Catalog No. 800 and supplements. Write for your Free copy.



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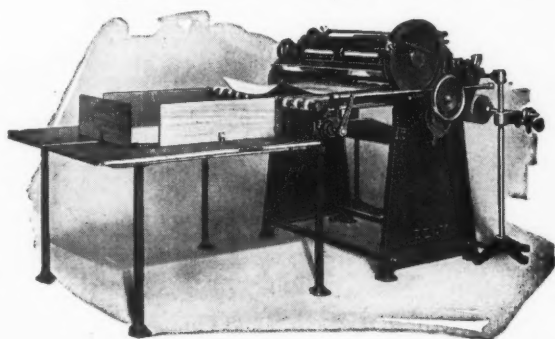
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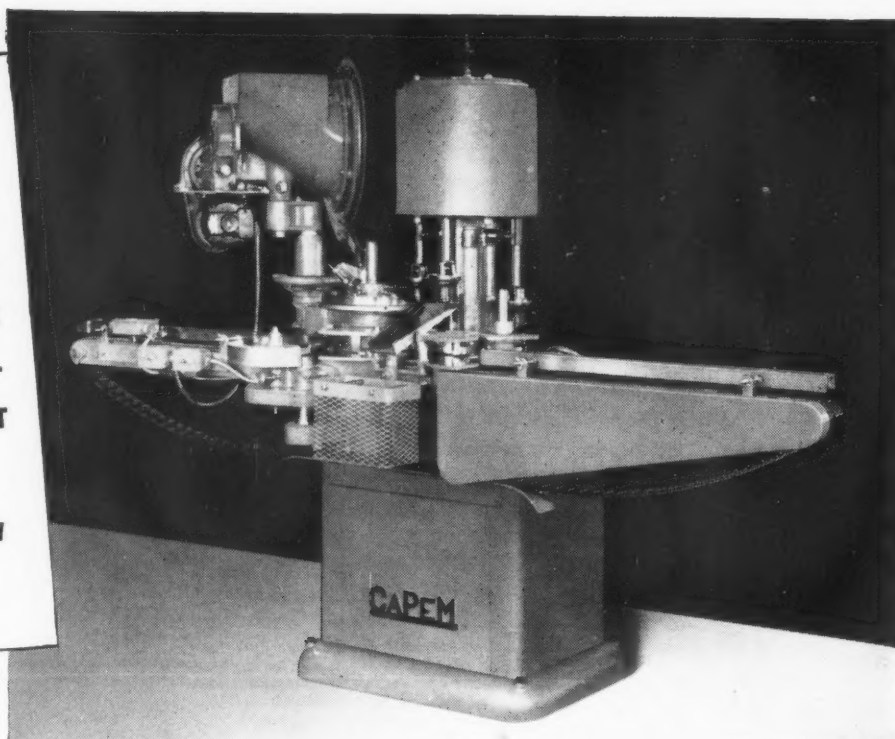
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Easy, Perfect HEAT SEALING



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**Amazingly Accurate CONTROL of Base-Heat
Properly Seals Heat-Sealing Materials**

Each heat-sealing material requires its own particular temperature to seal it properly.

The Wells Thermosealer solves this tricky problem—makes it easy—because Wells developed an adjustable Thermostat that holds the temperature of the aluminum base within the close tolerance required for the given heat-sealing material. You get perfect seals. In devices where the temperature is not closely controlled, sealing is haphazard.

Assures Perfect Seals

For more than 10 years the Wells Thermosealer has proved reliable. It is sturdily built for long years of good service. Made by the Wells Manufacturing Co., a prominent electrical manufacturer of 30 years' experience, the Thermosealer is widely used the nation over. Users try one, like it, and buy more.

It plugs into any Alternating-Current Convenience Outlet of 110 volts. Properly insulated and built for safe use. Has long-lasting full-size Heating Element. Adjustable Temperature Control of high accuracy.

The Wells Thermosealer, built of Aluminum and weighing but 10 ounces, does not fatigue the operator.

Sold by Dealers in Heat-Sealing Materials

WELLS MANUFACTURING CO.

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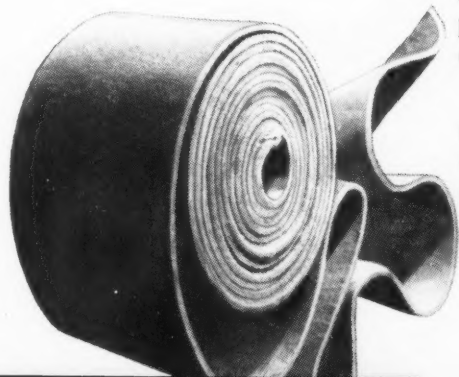
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TUFFLEX . . . the unbeatable combination of softness and toughness . . . handles the finest furniture and appliances *with care*. Tufflex assures safer travel . . . helps dealers and customers appreciate the extra quality of fine workmanship.

This new protective padding material is **SOFT** as



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FLEECE . . . can never nick, scratch or mar the finest finish. **TOUGH** and **SPRINGY** . . . Tufflex resists heavy impact blows, minimizing damage. Excellent for the longest, roughest journeys because it stays in place . . . won't bunch, sag or pull apart.

Tufflex is easily cut to any desired size or shape . . . always leaves clean, smooth edges. And for special purposes, Tufflex is available in moisture-resistant or fire-retardant form.

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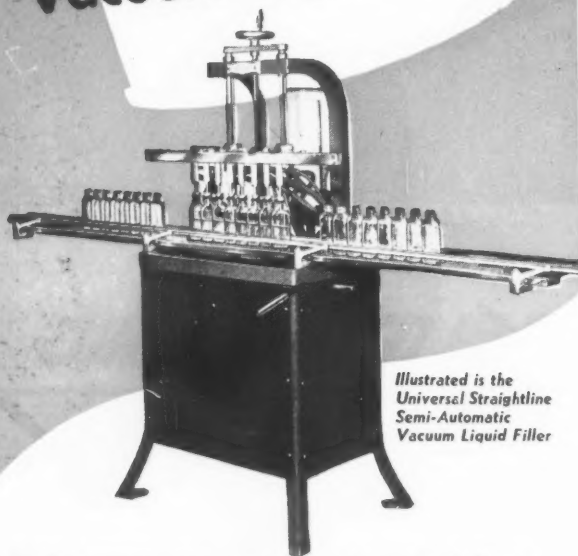
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U.S. Patents Digest

Edited by H. A. Levey

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Tape Dispensing Mechanism, J. F. Cullin (to Better Packages, Inc., New York, N. Y.). U. S. 2,456,625, Dec. 21. Mechanism for dispensing tape from a roll comprising a rotatable wheel, means for unwinding tape from roll and a plurality of cutting devices rotatable with the wheel and manually and selectively shiftable for severing strip from tape adhering to wheel.

Container, W. A. Roselle, New York, N. Y. U. S. 2,456,735, Dec. 21. A container comprising a body of angular cross section and a top plate secured to upper edges of body, body having a portion at one corner extending above top plate forming a spout.

Container, F. L. Rushing (to Gaylord Container Corp., St. Louis, Mo.). U. S. 2,456,841, Dec. 21. A shipping carton comprising an upwardly opening body and a removable and replaceable self-locking slip cover therefor, body including upstanding end-wall panels having hand hole openings therethrough and upper marginal flaps folded downwardly to cover openings.

Lipstick Case, H. K. Kaye, Chicago, Ill. U. S. 2,346,948, Dec. 21. A lipstick container comprising a case having a longitudinal pocket of generally cylindrical shape to receive a lipstick holder and having its external cross section shaped to provide side faces, at least one of which is provided with a recess on one face thereof, a mirror fitting snugly within same.

Container Closure, H. G. Maeder, Jr., and M. R. Day (to Dewey & Almy Chemical Co., North Cambridge, Mass.). U. S. 2,456,972, Dec. 21. A container closure including a closure element and a self-adherent solid, pit-free vulcanized sealing element, the latter being the reaction product of a vulcanizable elastomeric polymer, a vulcanizing agent, and a rubber peptizer in the presence of a plasticizer, the peptizer being in proportion sufficient to have liquefied the polymer at above 68 deg. F.

Collapsible Tube Holder, C. Arp, San Francisco, Calif. U. S. 2,457,024, Dec. 21. An elongated flat plate forming a collapsible tube accommodating and supporting base, plate being fashioned and formed at one end into a transverse, curvilinear bend, bend including a bight portion projecting laterally from and disposed on a plate below the underside of the plate and a limb portion of the bend terminating in a laterally directed portion apertured and forming a horseshoe-shaped tube neck so fashioned to accommodate a slidably mounted, manually shiftable anchoring clip.

Bottle Holder and Carrier, W. A. Bertram, Chicago, Ill. U. S. 2,457,027, Dec. 21. A bottle carrier comprising a body portion for supporting bottles by their necks or rims, including apertured upper and lower members of sheet material slidably adjustable, one relative to the other, into bottle-receiving and bottle-carrying positions, lugs provided on lower member to which a handle is pivoted.

Dispensing Container, S. Verner, Montreal, Quebec, Canada. U. S. 2,457,107, Dec. 21. A container for housing a supply of gummed paper, formed from a single sheet of material, the combination of integral front, back, side and bottom walls, a pocket in container, said pocket comprising an auxiliary wall integral with the bottom edge and connected thereto by a folded edge and slightly spaced inwardly therefrom, a pair of opposite auxiliary flaps extending from auxiliary wall, flaps overlying inner surfaces of side walls.

Container and Method of Using Same, W. D. Brandon (to Baxter Laboratories, Inc., Glenview, Ill.). U. S. 2,457,120, Dec. 28. In a container provided with an open-neck closure means for container comprising a resilient plug engaging neck of container in sealing relation therewith, each closed by a thin integral diaphragm, diaphragm after being punctured with a point-equipped tube being self-sealing against the passage of air therethrough when tube is withdrawn.

Container and Blank Therefor, J. G. Bell (to Morbell Products Corp., a corporation of Delaware). U. S. 2,457,198, Dec. 28. A container having a top and bottom and lateral walls, lateral



Be penny wise *and* pound wise —with St. Regis* Multiwalls

This modern, economical method of packaging belies that part of the old proverb which says "*pound foolish*." For St. Regis Multiwalls are wise on all counts. Penny wise because they protect every pound, every *ounce*, of the product . . . and, by emptying clean, deliver the *complete contents*.

Specification kraft paper when converted into multiwall bags is not only the most economical packaging material. It also lends itself to the greatest variety of uses. Over 400 commodities, in an amazingly wide range, are now packed in multiwall paper bags!

New products join the list daily. In the St. Regis laboratories, constant experimentation is going on. Have *you* a product you'd like tested for packaging in paper? Ask your nearest St. Regis sales representative for information. He will tell you, too, how a complete St. Regis Packaging System (Packers plus Bags) can cut packaging costs. Now, with the highest break-even point in history, *this is important service for you*.

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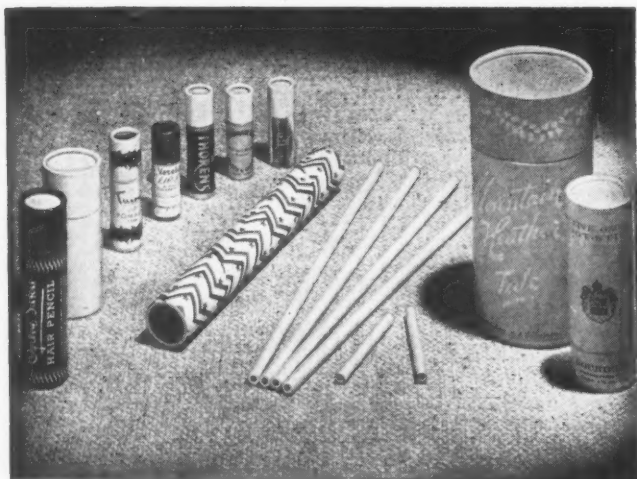
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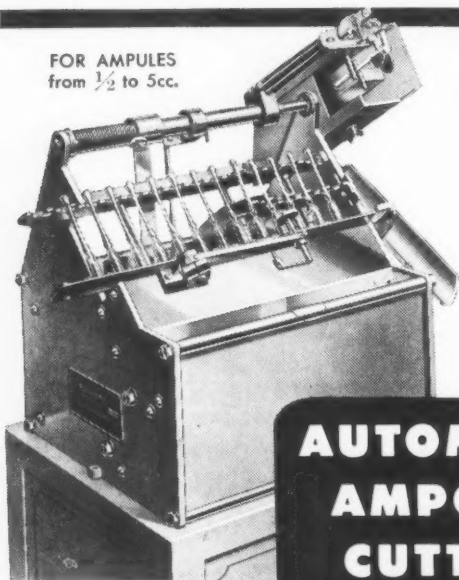
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U.S. Patents Digest (Continued)

walls comprising a continuous strip of material wrapped upon itself and of such length to provide a wall of double thickness, upper edges of the two layers being rolled outwardly and downwardly to form a stiffening ring about the container top.

Tablet Counting Apparatus, C. C. Fowler and G. T. Clark (to Lanteen Medical Laboratories, Inc., a corporation of Delaware). U. S. 2,457,220, Dec. 28. In a tablet counting machine, a turntable having in an annular path a plurality of spaced groups of a predetermined number of holes, a hopper under which said groups of holes successively pass so that one tablet will fall into each hole of the group under the hopper; means for rotating the turntable and means for releasing the tablets of a group at a point removed from the hopper to pass into a container so that it will contain a predetermined number of tablets.

Means and Method For Producing Infusion Bags With Non-Tangling Handles, L. B. Eaton and R. W. Bergobbi (to Pneumatic Scale Corp., Ltd., Quincy, Mass.). U. S. 2,457,216, Dec. 28. An apparatus for producing non-tangling infusion bags of the type provided with handles, means for forming a strip of connected, filled and closed rectangular-shaped bag sections, means for severing successive end-most bag sections from the strip, conveying means having a plurality of grippers arranged to receive successive end-most bag sections prior to severance from the strip, means for attaching a handle comprising a length of twine and a tag to each of successive bags while supported in said grippers, means for retaining one end portion of length of twine adjacent one edge of bag and means for fastening a tag to end of twine remote from bags.

Apparatus for Producing Filled Bags, S. R. Howard (to Pneumatic Scale Corp., Ltd., Quincy, Mass.). U. S. 2,457,237, Dec. 28. An apparatus for producing infusion bags having in combination a bag-supporting means arranged to receive and support a bag, means for attaching a handle comprising a tag and a length of twine to the bag, including means for relatively moving the twine and the bag to loop the twine about the bag and its support, means for withdrawing bag from support and means for releasing loop from support prior to withdrawing operation.

Blade-Wrapping Machine, C. N. Henshaw (to Pal Blade Co., Inc., New York, N. Y.). U. S. 2,457,233, Dec. 28. Blade-transfer mechanism for a blade-wrapping machine comprising a blade magazine for a stack of slotted blades, a slide having a bifurcated blade support and a pusher for moving lowermost blade from magazine and holding it on the support above a wrapper and mechanical means for placing blade on wrapper.

Carton and Display Stand, F. W. Wenzel (to Hummel & Downing Co., Milwaukee, Wis.). U. S. 2,457,291, Dec. 28. In a carton, the combination with a tray portion having a bottom and front, rear and end walls, the rear wall having upright slit means, of rear reinforcing panels connected to the respective end walls and extending therefrom behind the rear wall toward slit means and having partition plies connected with panels extending through the slits and equipped with interlocking flaps.

Shipping Assembly, G. H. Norquist, Jamestown, N. Y. U. S. 2,457,262, Dec. 28. An article accessible shipping assembly designed to contain and protect an article during shipment and handling including in combination, a knock-down supporting framework having a partition member adjacent each end thereof, each partition member having an opening therein through which one end of the article may be telescoped and removably supported by said partition members.

Bottle Carrier, M. G. Hall and T. Hurban, Jr. (to Empire Box Corp., Garfield, N. J.). U. S. 2,457,307, and 2,457,308, Dec. 28. A pre-formed bottle carrier formed from paperboard and adapted to receive bottles of predetermined height having side walls, a bottom wall, a handle portion comprising juxtaposed panels and bottom receiving sections between side walls and panels.

Device for Assisting in a Hand-Labeling Operation, E. H. Pierce (to Swift & Co., Chicago, Ill.). U. S. 2,457,489, Dec. 28. A container labeling device comprising a base member and a repository for a stack of labels carried by base member including side walls and rear walls rigidly secured to base, adapted to position a container above stack of labels so that one of ends of uppermost labels may be readily grasped and wrapped around container, a glue pot having longitudinal opening to contact label.

Container Controlled Vacuumizing Apparatus, A. L. Kronquest (to Continental Can Co., Inc., New York, N. Y.). U. S. 2,457,690, Dec. 28. In a machine, a casing open at its bottom and forming a filled container vacuumizing chamber

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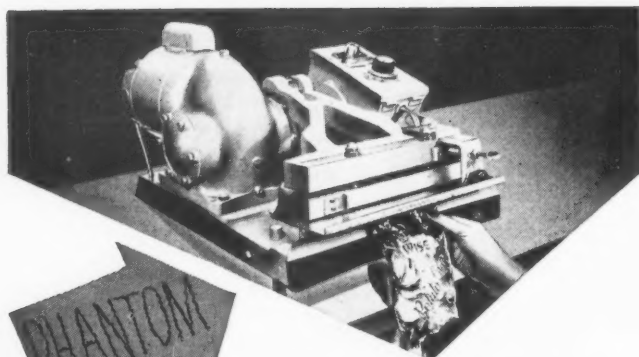
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U.S. Patents Digest (Continued)

therein, a container-supporting pad vertically reciprocable for lifting filled containers into and lowering vacuumized containers from said chamber.

Shipping Container, F. L. McGary and C. E. McGary, Hardinsburg, Ky. U. S. 2,457,702, Dec. 28. A shipping container comprising a head, a body portion, a hoop surrounding the head end of the body, having openings therethrough and radially movable bars on head, bars being turned up at their outer ends to provide hooks for engaging parts of hoops to prevent retraction of bars, bars having longitudinal guide slots spaced lengthwise.

Capping Machine For Feeding Caps Through a High-Frequency Heating Coil, H. G. Vore (to American Seal-Kap Corp., Wilmington, Del.). U. S. 2,457,758, Dec. 28. A machine for applying to containers and heat sealing thereon pre-formed hood caps having foldable pleated skirts carrying a thermoplastic adhesive coating and having an electrically conductive character at least on the region of said coating, machine including a magazine containing a supply of caps, a coil to allow caps to pass therethrough, means to remove caps from magazine and means whereby caps passing through coils will absorb electromagnetic energy in amounts sufficient to heat adhesive to plasticizing temperatures.

Envelope Having Tamper Detection Means, D. L. Drummond, Santa Maria, Calif. U. S. 2,457,809, Jan. 4. An envelope including a piece of material folded upon itself to form a front and a rear panel, a perforated flap integral with extremity of front panel remote from fold, same being folded back over rear panel with adhesive means for attaching, a layer of impregnated paper adhesively attached to one portion of the envelope and a piece of indicator paper adhesively attached to the impregnated paper whereby discoloration of the indicator paper may be observed through the perforations.

Storage and Display Box, T. B. Epps, Boston, Mass. U. S. 2,457,812, Jan. 4. A box made from sheet metal and having a body comprising a bottom wall in the form of a right-angled parallelogram; a perpendicular rear wall; two spaced-apart box-like side walls at opposite side of bottom wall, each of which is connected with proximate side of said bottom and with proximate end of rear wall; an adjustable easel disposed between side walls comprising a panel that is hingedly connected at its one end and in this position being fully exposed to view from the front.

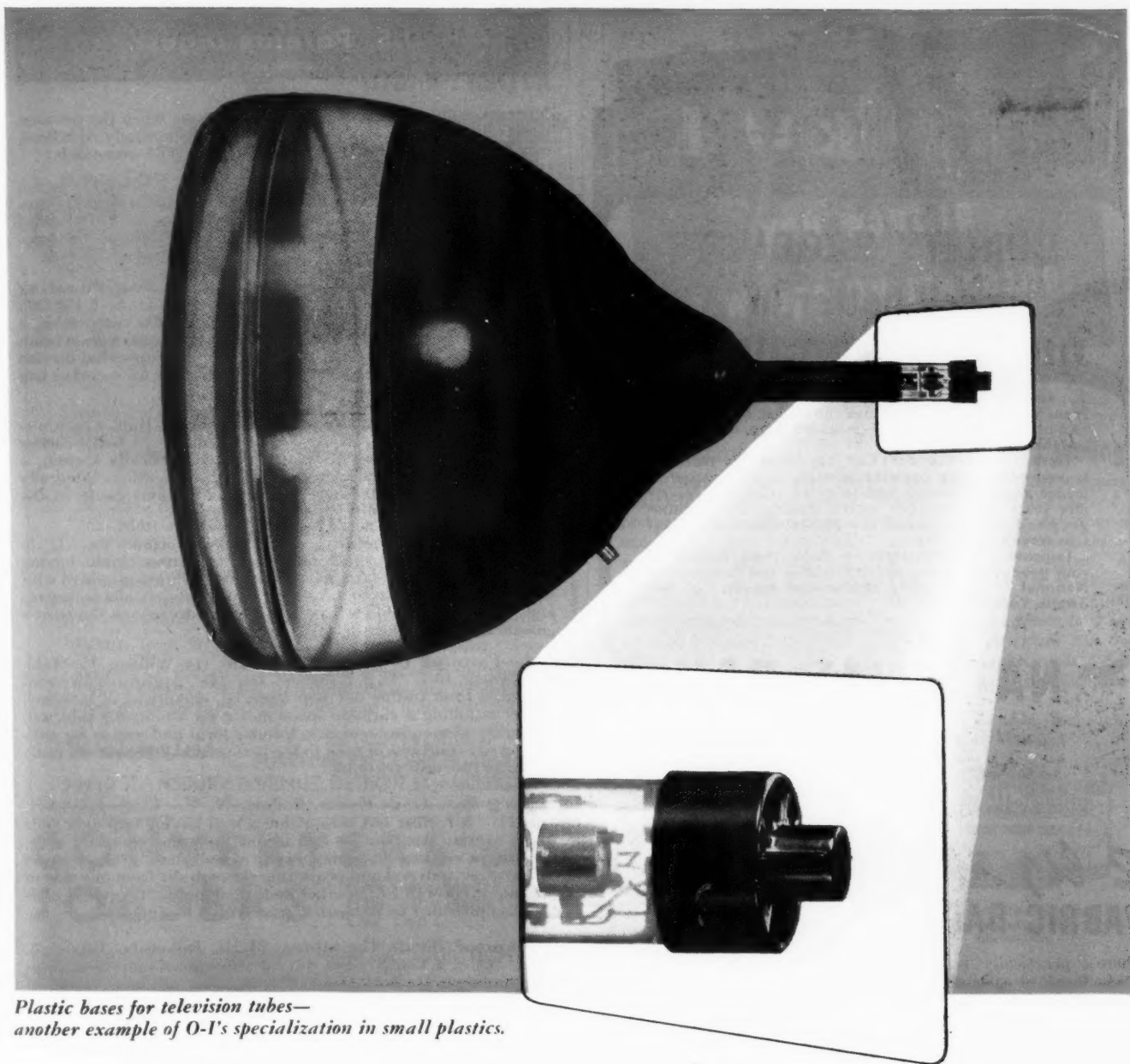
Sealing Device for Dry Cells, G. B. Ellis (to United States of America represented by the Secretary of War). U. S. 2,457,810, Jan. 4. In a primary cell comprising a metallic container, electrodes and an electrolyte with the container, the combination of a metallic disk on one of the electrodes, a grommet insulating the disk from the container, disk and grommet having opposed annular interfitted channels, each sealingly receiving part of the other.

Freight Container, L. D. Smith, R. A. Stearn and C. R. Christianson, Sturgeon Bay, Wis. U. S. 2,457,841, and 2,457,842, Jan. 4. A freight container having legs depending from body, upwardly open leg sockets permanently mounted in upper part of container in vertical alignment for seating similar legs of another container, side walls on leg sockets cooperatively holding the legs of a superposed container from lateral movement.

Milk Container, J. P. Jones (to Dairy Specialties, Inc., Omaha, Neb.) U. S. 2,457,822, Jan. 4. In a cream-separating milk container, a receptacle having a wall opening extending upwardly from the cream level with a partially severed closure tongue, a cream-separating partition secured within the container at the lower cream level and having upward wall attached extremities, one of which seals the opening in the wall of the container and provided with a frangible closure tongue secured to and opened by the corresponding tongue of the container.

Apparatus for Vacuum Sealing Canned Food, W. J. Chambers, Chicago, Ill. U. S. 2,457,867, Jan. 4. A portable home apparatus for sealing containers having a radially projecting shoulder located below the mouth of the container comprising a portable head provided with a heat-insulated handle and inlet means for connection to a source of heat steam and having a cylindrical sterilizing chamber and plunger for depressing on cover.

Closure Device, J. W. Fay and R. Fay, Villa Park, Ill., (said R. Fay to J. W. Fay). U. S. 2,458,360, Jan. 4. A closure device for receptacles wherein a vacuum is developed in the receptacle by cooling the contents thereof, comprising a curvilinear sealing disk characterized by its ability to be held in concave form by the greater pressure externally of the receptacle and capable by its



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U.S. Patents Digest (Continued)

inherent resiliency of assuming a convex form when the pressure upon opposite sides of the disk becomes substantially equalized, cap having skirt for threaded engagement with receptacle.

Package, L. L. Salfisberg (to Ivers-Lee Co., Newark, N. J.). U. S. 2,457,924, Jan. 4. A dispensing package comprising opposed flat layers of tearable flexible packaging material sealed together along zones which form and bound an elongate compartment between said layers to receive articles closed at its ends.

Weighing Device with Bag Filling and Bag Vibrating Means, E. W. Vredenburg, Berkeley, Calif. U. S. 2,458,228, Jan. 4. In a machine for filling bags and similar receptacles, a supporting frame, spaced balance bearings on frame, a scale beam resting on balance bearings, a feeding hopper supported on one end of scale and a frame suspended from hopper for securing bag to outlet.

Bottle Carrier, E. H. Lupton (to The Bartgis Bros. Co., a corporation of Maryland). U. S. 2,458,281, Jan. 4. A bottle carrier for sustaining two rows of bottles stacked vertically therein, a single blank of material segregated into three sections integrally connected with one another, one of said sections being in the middle of the blank between a handle section.

Carton Folding Machine, A. R. Cake, Norfolk, Va. U. S. 2,458,341, Jan. 4. A machine for folding carton blanks having side walls and end walls, in which said end walls are provided with extensions adapted to fold over corner gussets, means to engage and turn the side and end walls and means to engage the corner gussets and cause them to fold inwardly.

Tube-Forming Device, F. V. Collins (to William F. Stahl, Kenilworth, Ill.). U. S. 2,458,563, Jan. 11. Apparatus for forming tubes from fusible flat web material, comprising a mandrel, means including a variable speed motor for advancing said web forwardly of mandrel and into tubular form and means for subjecting edge portions of tube to the action of high frequency radio waves to fuse said portions.

Folding Box, G. J. Evans, Buffalo, N. Y. U. S. 2,458,578, Jan. 11. A folding box comprising a wall having opposing ends which overlap one another and means for connecting said ends, including a vertical slit formed in one of wall ends, a tab arranged on the other wall end and projecting through slit from one side of the respective wall to the other and engaging with opposite ends and also provided on its central part with a locking lip.

Shockproof Bottle Container, M. B. Salkowitz, Brooklyn, N. Y. U. S. 2,458,737, Jan. 11. A shockproof individual shipping container for bottled goods comprising an outer casing of conventional stiff paper tube stock, including a base having an end wall of sheet metal crimped thereto, a composite protective liner secured within said base, said liner comprising two tubes of stiff paper tube stock defining an annular space therein.

Container, A. J. Chateaufneuf, Lockport, N. Y. U. S. 2,458,834, Jan. 11. A container comprising a plurality of walls and a bottom, longitudinal strips of flexible folded material, lines of stitching securing said strips to the marginal edges of walls and bottom, stitches attaching strips together at adjacent ends thereof to connect the corners of said walls and bottom, a reinforcing strip intermediate of opposite walls and provided on the top edges thereof, cover means hingedly mounted on reinforcing strip at the top edges of opposite walls, cover means including top members.

Method and Apparatus for Wrapping Saw Blades or the Like, H. E. Wilson and G. W. Wilson (to Pittsburgh-Erie Saw Corp., Pittsburgh, Pa.). U. S. 2,458,971, Jan. 11. Apparatus for wrapping saw blades or the like comprising a table, traction rolls thereon adapted to engage a blade placed on edge on the table, means for delivering a wrapping strip longitudinally of the blade and guide blocks spaced along the table effective progressively to fold the edges of the strip around the blade as it is pulled through the blocks by said rolls.

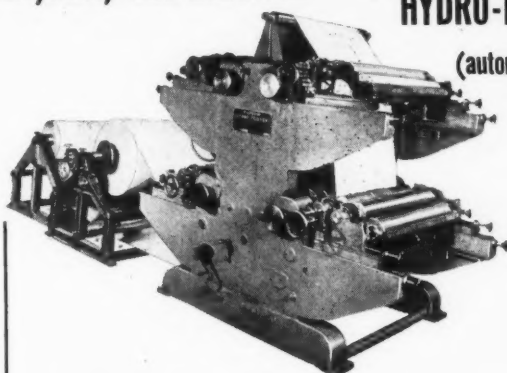
Method of Making a Bag Having a Filler Mouthpiece in One End, H. A. Wolf (to E. Wolf, H. A. Wolf and W. L. Wolf trading as Wolf Brothers, Philadelphia, Pa.). U. S. 2,458,972, Jan. 11. Method of making a filler bag having an impervious tubular filler mouthpiece from a bag and a mouthpiece, each having infolds at its opposite sides and panels extending from side to side of infolds, comprising nesting within the open end of the bag, an open-ended tubular mouthpiece having infolds of less depth than the infolds of the bag, then placing a strip of impervious material having cement on one face thereof over the entire outer bag,

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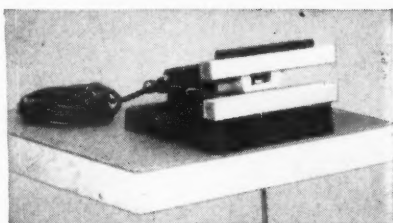
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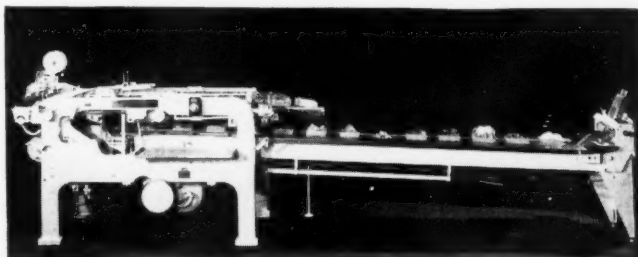
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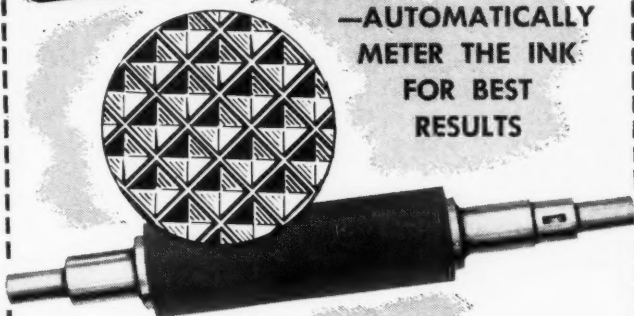
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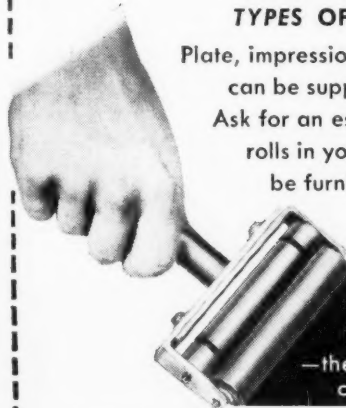
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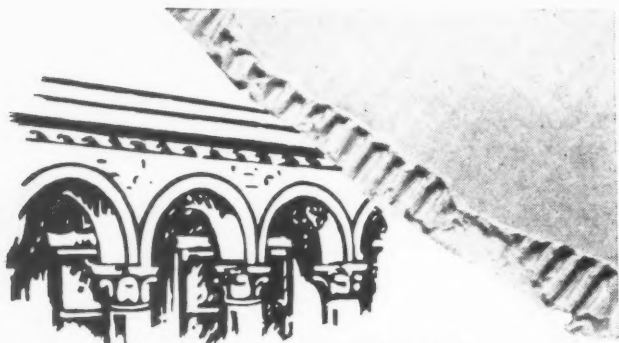
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complete line of Paper
and Fiberboard containers.
Box Company Inc.
CHARLOTTE, N. CAROLINA

The ABC's of good aniline printing



Get all 3
in MOSSTYPER's
coordinated
production
service

Write for details.

MOSSTYPER
CORPORATION

33 Flatbush Avenue Brooklyn 17, New York

Serving Converters and Package Printers all over the world.

Packaged for hobbyists

(Continued from page 101) which home craftsmen were asked whether they would be interested in purchasing packaged assortments of hardboard, what sizes they would prefer, number of pieces desired per package, projects they would want to make, etc.

Working closely with Masonite Corp., *Popular Mechanics* developed a number of craft and hobby projects based directly on the survey preferences, correlating them with the amount of material in each carton. Detailed plans for any of the projects may be obtained directly from *Popular Mechanics* at 25 cents each, using the order form enclosed in each Craft-pak.

The Craft-pak cartons are printed two-color letterpress on 0.030 kraft-lined chipboard. The three smaller units are glued, straight-tuck cartons with double-end lock, while the large package is catalog-folder style, glued after packing. Hand packing operations on the Craft-paks are being integrated by means of a special packing table which will simplify assembly of the four sizes of board and loading the pieces into the cartons.

The Craft-paks are combined according to size and wrapped in kraft paper in units weighing from 50 to 70 lbs., with a label on each end of the bundle. This arrangement simplifies ordering and stocking and facilitates shipment. In most instances, it is believed, the unbroken bundles will move from wholesaler to retailer before being opened, since they constitute a convenient unit of sale.

CREDIT: Cartons, Container Corp. of America, Chicago.

Play packages

(Continued from page 116) more attractive to shopper and child when the package can be used as a miniature theater complete with screen for showing the film. For this package a two-piece folding box has been used. Flaps of the base fold open to form the proscenium arch while the bottom is printed to make the screen. The projector is held in place in a die-cut slotted platform.

Producing a package with toy-utility features is usually not expensive, often requiring only the cost of the plates for printing the cut-outs or toy-use features. For large volume items, plates can be changed occasionally to provide new appeal. On smaller runs, where the item is often a novelty, such packaging has been found to pay for itself many times over, because of the advantage afforded over competitors.

CREDITS: Wilson & Co. cartons, Fibreboard Products, Inc., San Francisco. Golden State cartons designed by Cornelius Sampson, San Francisco, and supplied by American Can Co., New York. Norbest cartons, Container Corp. of America, Chicago. Holiday Sweets circus wagon and teepee, Frankenberg Bros., Inc., Columbus, Ohio. New Orleans Confections cartons, Gadiel Associates, Inc., Chicago. Nutrine cartons designed by Robert I. Goldberg, New York, and supplied by Triboro Carton Co., Brooklyn. Rudolph Toy Projector cartons designed by William Schusterman, New York, and supplied by Blum Folding Paper Box Co., Brooklyn.

here it is

THE PROGRESSIVE ELECTRONIC TRANSEALERCORNER-SEALS 600 PLASTIC BOXES HOURLY

Now, with the Progressive Electronic Transealer, you can seal corners of transparent boxes at phenomenal speed, better than ever before. The Transealer, which seals all kinds of thermoplastic sheet, has many advantages which will interest you if you use or manufacture transparent plastic boxes. Here's a quick rundown—

HIGH PRODUCTION SPEED

A real speed demon, the Transealer seals transparent cylinders as well as it does the corners of square boxes. It's designed to keep operator fatigue low, so production speed stays at top level.

BOXES UP TO 6" DEEP

The Transealer's *extra-length* electrode allows you to seal corners up to a full 6" depth. Stock may be as thick as .020". The seals are clear, permanent—need no messy cements or solvents.

SIMPLIFIED TUNING

All high frequency radio equipment requires adjustment for the gauge and length of the seal being made. In the Transealer, this adjustment has been simplified to the tuning of a single knob, which the operator can do without supervision.

These advantages add up to better transparent boxes made faster, at lower cost. Want a demonstration of the Progressive Electronic Transealer? We'll gladly arrange one at your convenience if you'll write at once.

The Transealer operates on 110 volt A.C. and is covered by a service and maintenance guarantee.



Progressive Electronics Co. inc.

Bldg. #3 • 132 Eighth Street • Passaic, New Jersey

Cut Labor Costs

With CRCO-NEW WAY

Feed Tables



Use CRCO-New Accumulating Feed Tables anywhere in the plant to assemble glass, tin or other cylindrical containers in a single or double line for

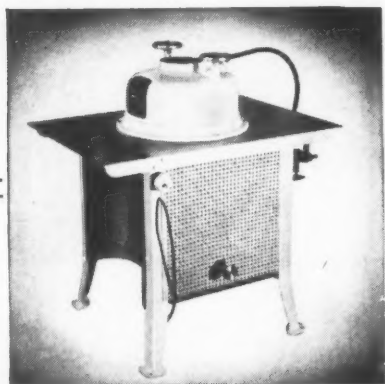
the next operation...when dumping cartons, crates, trays or retort crates. Simple in operation—positive in action—nothing to get out of order.

THE BEST OF
Everything
IN LABELING
AND CASING
EQUIPMENT

Chisholm-Ryder
COMPANY OF PENNSYLVANIA
HANOVER, PENNSYLVANIA

512

Send for new Catalog of Feed Tables, Labelers,
Casers and other warehouse equipment



The PerfeKtum AMPWASH Rotary Type

A new development for washing ampuls, vials and similar containers in plants which do not require the quantity output of the larger conveyor-type machines. Average operator can wash 1500 to 2000 containers per hour. Has variable speed drive. Easy to operate and install.

Write for complete literature on the AMPWASH and our other filling and sealing equipment.

PerfeKtum
PRODUCTS COMPANY

Established 1922

300 Fourth Ave. New York 10, N. Y.



Cans with Sales Appeal

A complete custom service from sketch to a finished product that is exclusively yours. Your lithographed containers combine easy brand identification with ideal product protection.

We also manufacture a complete line of round cans with stock designs for candies and cookies.

Let Empire quote on your requirements. We should get acquainted.



"No other container protects like the can"

Empire Can Corp.

220 Ashford St. Brooklyn 7, N. Y. APplegate 7-4701

Hinds Honey & Almond cream

(Continued from page 90) many models were made, tested and discarded before something on the order of the curving, tapered bottle which appears on our cover was evolved. The problem was handled by Purchasing Director Jerome Samet and Artist Alice Jones, working closely with one of the bottle suppliers. Variations of the design with three, four and five "bumps" were considered before the four-bump version was finally selected, as providing the best hand grip. Single-cavity molds were made and a few bottles turned out for test purposes. Trouble developed on the production lines; the bottles tended to chip where they contacted at the two lower bumps in going through the line. This defect was corrected finally by changing the mold to flatten these bumps just at the point of contact—a detail which is not apparent after the bottles are filled.

Meanwhile the special-mold closure in polystyrene was designed by Miss Jones and molds were ordered. The full-shirt, tapered design was adopted even though it might be slightly more difficult to handle in capping, because it seemed to provide just the right accent to the softly curving bottle. When it was found that this closure could be had in a distinctive coral color, the same color was specified for the redesigned label. The label, too, was die cut with a softly scalloped border to harmonize with the bottle shape. A back label of identical size, shape and color gave use information.

By 1943 all the bugs were out and the new package was ready for production. But wartime conservation orders intervened and it was March, 1947, before the first of the new-mold bottles was shipped to retailers. Meanwhile, to provide a transition, the color and design themes of the new label and closure were adapted to the straight-sided 1939 bottle, starting in August, 1946.

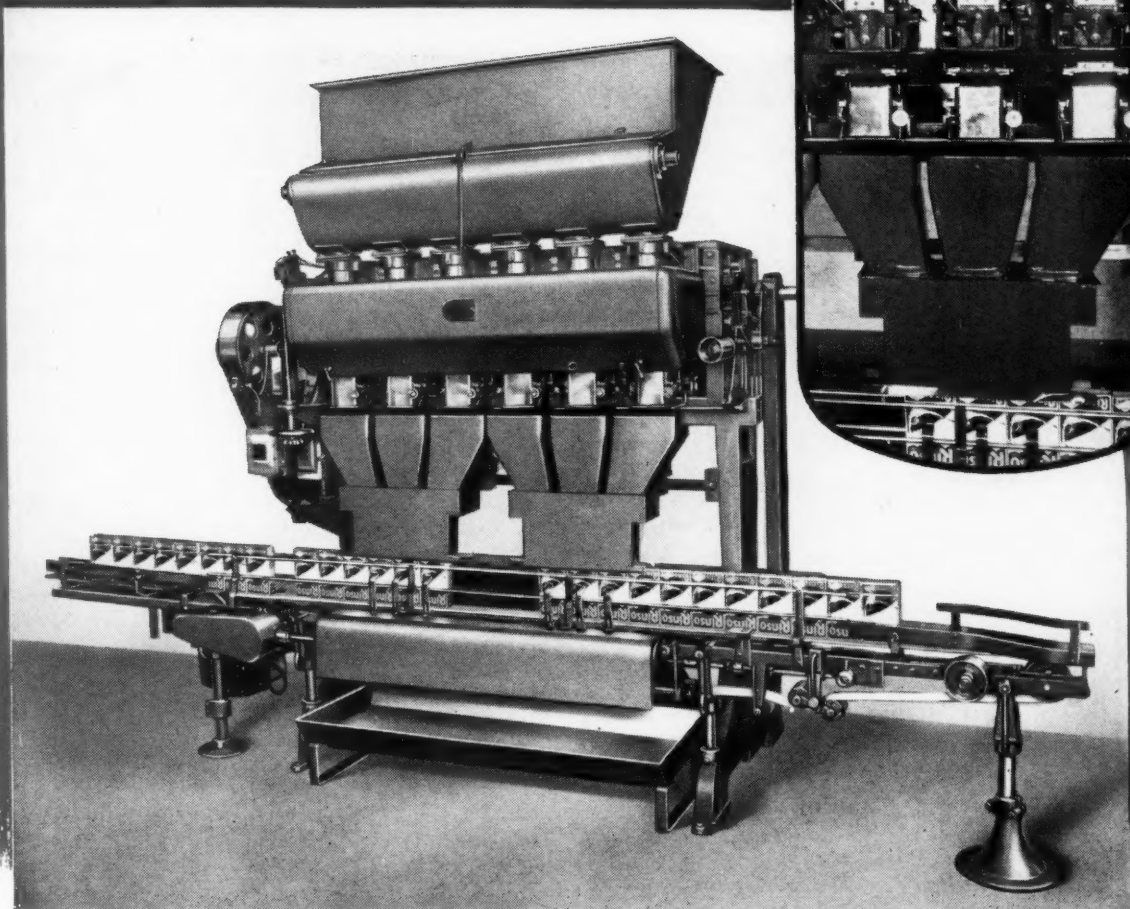
From the beginning the new bottle was shipped without an individual carton. Wartime conservation experience (all cartons were dropped as stocks ran out between 1942 and 1946) had shown that cartons were unnecessary for protection so long as cellular shipping containers were used and Lehn & Fink officials preferred that the beauty of the new bottle not be hidden on the shelf or counter.

Lehn & Fink feel that they now have, by all odds, the most beautiful package in the hand-lotion field. Although sales figures are not disclosed by the company, it can be stated that a steadily rising sales curve has been shown ever since March, 1947, over a period in which most cosmetics and toiletries were having their ups and downs. Sales for 1948 were definitely larger than those for 1947.

The best indication of the company's confidence in the current package is the unusual counter display shelf now being supplied to dealers. An anonymous "Hand Beauty Department," the display mentions no brand, but has three shelves with space for 12 bottles of lotion. The dealer is asked merely to display four bottles of Hinds at all times on the right-hand side, along with bottles of competitive brands. This display, according

IS YOUR WEIGHING

A PROFIT OR LOSS CENTER?



Six Scale Net Weight Weigher for soap powder with close-up view of weighing mechanism and newly designed funnel arrangement for dust control when handling materials presenting a dust problem.

In today's competitive field, the weighing operation of any packaging production line could well be called its "profit and loss center." Weighing machine accuracy has become a "must" in the packaging industry and Pneumatic, a leader in the field for over fifty years, has specialized in precision built weighers of nearly every description.

Pneumatic machines are daily handling tons upon tons of such widely assorted products as soap powder, brown sugar, shelled nuts, prepared flours, flake

cereals, rice, moth balls, coffee, soap flakes, apple nuggets, tea and macaroni. Your product will be best packaged on a Pneumatic machine that is designed and built to give you greater weighing efficiency at Lower Cost per Container.

PNEUMATIC SCALE CORPORATION, LTD.,
82 Newport Ave., North Quincy 71, Massachusetts.
Branch Offices in New York, New York; San Francisco, California; Chicago, Illinois; Los Angeles, California.

PNEUMATIC

PACKAGING AND BOTTLING MACHINERY

Over ninety different machines for the packaging of dry, free-flowing products and the cleaning, filling, capping and labeling of containers for liquids and semi-liquids

Packard

presents

→
**TWO ROUND
CONTAINERS**



IDEAL FOR FOOD PRODUCTS

Housewives acclaim the easy-operating dispensers on these Packard spiral wound containers. The small container has a push-in closure which allows the proper amount of grated cheese to be shaken out. The large container has a completely sealed, readily opened revolving top, perfect for breadcrumbs and other granular products. This closure is very inexpensive and any size and number of sifter holes are possible.

Many other closures and low cost spiral wound containers are made by Packard. Various metal end and paper end styles are available in all diameters and lengths. Want samples suitable for your products? ... Tell us what you make.

Packard Container Corp.

5811 PARK AVENUE, WEST NEW YORK, NEW JERSEY
PHONE UNION 5-5818
NEW YORK CITY TELEPHONE LO 4-2348

WAXES

For paper board impregnation



**FOR DIP COATINGS
EMULSIFIED WAXES
COATING WAXES**

Meet Army and Navy specifications

WAXES FOR FUNGUS PROOFING

Our laboratory will welcome your problems

**Zophar Mills, Inc. has been known
for its dependable service and uni-
formity of product since 1846.**

ZOPHAR MILLS, Inc.

Established 1846

106-26th Street • Brooklyn 32, New York

to Advertising Manager William Hausberg, has been the most successful the company ever has used, indicating to his satisfaction that on package appeal the majority vote is for Hinds.

The whole company, from President Plaut down, has long been unusually conscious of the sales value of effective packaging. But there is no blinking the fact that other factors have helped to keep Hinds, through all these years, the best known hand lotion around the world.

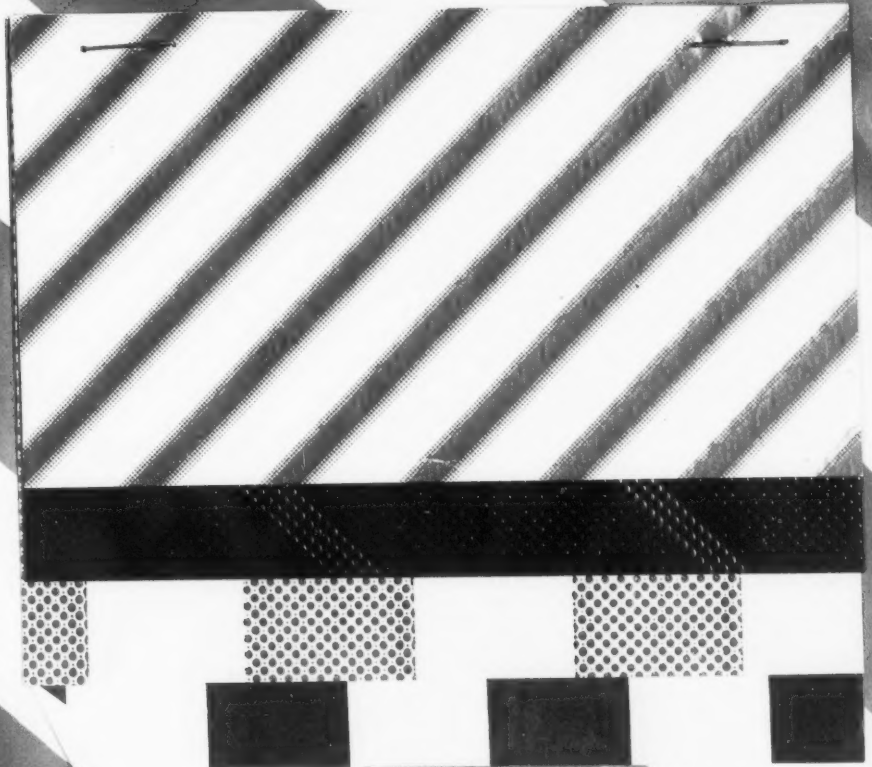
Product quality is first and foremost. Mr. Plaut knew he had a good product when he bought it from Hinds, for the ex-druggist, with absolutely no national advertising, had built a million-dollar-a-year, world-wide business. But since 1925 no expense has been spared to keep the formula up to the minute with the latest discoveries in skin care. At the Bloomfield plant, one of the biggest and most complete research and control laboratories in the cosmetic industry is maintained, with Dr. Emil Klarmann in charge. Hinds was among the first to add lanolin and other modern skin-softening ingredients.

Promotion has been cut back considerably from the ambitious program maintained during the early '30s, when the company was building up new distributive channels for the product—but Hinds is still a large and consistent user of national magazine and newspaper space, concentrating particularly on the feminine "class" magazines. No doubt a large part of the increase in sales shown after Lehn & Fink took over the product can be attributed to such big-name radio programs as the "Hinds Hall of Fame," an NBC network show in 1934 and 1935, which was one of the first of the variety shows featuring weekly guest stars such as Katharine Hepburn, John Barrymore, Joan Crawford, Myrna Loy, Lily Pons, Clark Gable and Carole Lombard. One of these guest stars made radio history at the time by receiving \$3,500 for a single appearance. Burns and Allen were sponsored by Hinds for one season. Starting in 1936, the company went into extensive five-a-week daytime serial stories, including sponsorship of "The Life of Mary Sothorn" for two years. Since the war, however, the radio budget has been devoted entirely to spot commercials.

Trademark protection has been zealously maintained. This is one of Mr. Moeller's responsibilities, in addition to management of export sales. An unusually complete collection of old packages, showing virtually every copy change for the last half century, is maintained and shortly after the company bought out the Hinds interests, it took the precaution of having Mr. Hinds dictate a lengthy affidavit, with exhibits, tracing the earliest history of the trademark and packages in detail. Because of this vigilance, "Hinds Honey & Almond Cream" has been successfully defended against some 50 or 60 would-be infringers.

Complete coverage of the market has always been a Hinds principle. Almost from the beginning the cream has been available in four sizes—roughly, 10, 25 and 50 cents and \$1—and the same sizes are shipped today,

BANDBOX STRIPES!



SINCE 1846



Luxurious papers by

Available in
MANY COLORS
and STRIPE DESIGNS

LOUIS DEJONGE & CO.

NEW YORK • BOSTON • PHILADELPHIA • CHICAGO

345 BROADWAY, NEW YORK 13, N. Y.

not only to drug stores, but to variety, grocery, cigar stores, etc.

Management is not only unusually alert to package values but, through the company's early experience as a large wholesale drug distributor, knows market channels and retailers' problems more intimately than most manufacturers. The company was founded in New York in 1874 by F. W. Fink and Louis Lehn; among its achievements it was the first to distribute diphtheria antitoxin in the United States. Albert Plaut, father of the present president, joined the company in 1894 and, with his brother Joseph, bought out Lehn and Fink in 1898. Albert Plaut died in 1915 and was succeeded as president by Joseph. Edward took over in 1921 to direct the period of the company's greatest growth.

With such a background, it is safe to predict that Hinds Honey & Almond Cream—always packaged and merchandised in key with the times—will be as familiar to our grandchildren as it was to our grandfathers.

CREDITS (current Hinds packages): *Bottle developed by Armstrong Cork Co., Lancaster, Pa., and supplied by Armstrong; Brockway Glass Co., Inc., Brockway, Pa., and Hazel-Atlas Glass Co., Wheeling, W. Va. Closures molded by Mack Molding Co., Wayne, N. J. Labels, National Label Co., Philadelphia. Filling, capping and labeling machinery, Pneumatic Scale Corp., Ltd., North Quincy, Mass.*

Increase cellophane production

Plans for expansion announced by American Viscose Corp. will step up Sylvania cellophane production to 100,000,000 lbs. a year. This expansion, to be completed in about two years, will double the present production of Sylvania cellophane and make Sylvania's Fredericksburg, Va., plant the largest single cellophane plant in the world, the company has stated.

"Only by adding to an existing plant is it possible to increase the production of cellophane for sale at competitive prices," the statement says. "New techniques and improvements in processing and production methods developed by the Sylvania Division of American Viscose Corp. have made this expansion possible."

Present over-all capacity of the industry is about 220,000,000 lbs. yearly, of which E. I. du Pont de Nemours & Co. makes about 75% and Viscose the balance. When the new production is complete, American Viscose will have between 35 and 40% of the total business, it was estimated.

Cellophane production, according to Dr. Frank H. Reichel, president of American Viscose, has been described as a depression-proof business which can be maintained at an even level in the face of depressed conditions in other fields. He attributed its success, even in hard times, to the improvement in packaging when conditions become more competitive. Increased use of cellophane in the food field, Dr. Reichel said, will provide a growing market. "Window" packaging for bread would create a demand beyond the combined output of all producers, he added.

The NEW IMPROVED MODEL D AND MODEL E EXTENSION DELIVERY



MODEL D: FACE-UP DELIVERY. VIEW WITH TAPE CARRIAGE DOWN



MODEL E: COMBINATION FACE-UP AND FLY DELIVERY. VIEW WITH TAPE CARRIAGE RAISED

\$ECURE INVESTMENT

In hundreds of plants, these modern EXTENSION DELIVERIES are increasing profits.

Write NOW to Dept. MP
for new illustrated folder.



THE RATHBUN & BIRD COMPANY, INC.

FOUNDED 1898

379 WEST BROADWAY DESIGNERS AND MANUFACTURERS NEW YORK 12, N. Y.



ONE CALL FOR ALL

- BASIC IDEAS • ART WORK • CARDBOARD
- CONSTRUCTION • METAL • PLASTIC • WOOD
- GLASS • LAMINATION • PRINTING

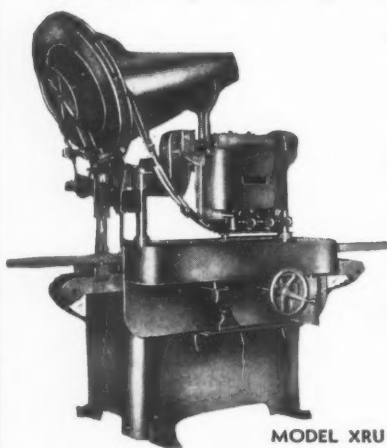
RIVER RAISIN PAPER COMPANY
DISPLAY DIVISION • MONROE, MICHIGAN

**RIVER RAISIN
DIMENSIONAL DISPLAYS**

Announcing....

NEW RESINA HIGH SPEED STRAIGHT LINE SCREW CAPPER

Flexible • Fast • Fully Automatic



MODEL XRU

- Operates at speeds up to 250 containers per minute.
- Extreme flexibility permits capping of any type of container up to one gallon size.
- Changes over between various types of containers by a simple twist of a knob.

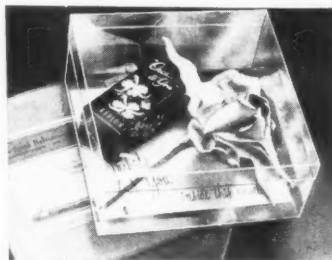
- Built-in conveyor, easily coupled to any packaging line.

Write for full information.

Top all them **RESINA** Automatic Machinery Co.
Incorporated
Court & Creamer St, Brooklyn 31, New York

Realistic sampling

To dramatize the life-like qualities of its Fidel-i-tone printing process, The Lord Baltimore Press used an unusual packaged mailing piece to compare an actual



cloth orchid with the beautifully reproduced printed orchids on a Revlon carton. Both were enclosed in a transparent acetate container and placed right on the prospect's desk. A carton in full color plus full-blown orchid

were attached to an envelope which read "Orchids for you inside this envelope" and containing the complete Fidel-i-tone sales story.

Enclosed within was also a reprint in four colors of a Revlon ad featuring the carton. A die-cut arrow index pointed to the carton reminding the prospective purchaser that "Fidel-i-tone is the exclusive reproduction process that brings the product to life on the package."

Packaging Show arrangements

"Proper Packaging Cuts Costs, Spurs Sales" will be the theme of Packaging Week, May 9 to 13, and also of the American Management Assn.'s National Packaging Exposition & Conference, the 18th annual renewal of which will be held Tuesday through Friday of that week in Convention Hall, Atlantic City.

The Conference program is taking final form following a meeting last month of the 20-member Planning Council of the AMA's Packaging Division. Lowered production costs and a greater stimulus to sales in a buyers' market through increasing management emphasis on improved methods of consumer and industrial packaging, packing and shipping were viewed as the primary problems of the packaging field today, according to J. D. Malcolmson of the Robert Gair Co., AMA packaging vice president.

Conference sessions will be held concurrent with the first three days of the Packaging Exposition. Meetings are open to both members and non-members, upon payment of a registration fee. The Exposition is free to all visitors who can show a business interest.

At last count, the number of Exposition exhibitors was close to 200—a record—and the Atlantic City hotels were preparing to accommodate an attendance of about 15,000. The AMA reports an understanding has been reached with the Atlantic City Hotel Assn. which should eliminate the complaints of three years ago about high prices and poor service. Conditions have changed considerably since that immediate postwar year, it is pointed out. Hotel reservations can be made by addressing the Housing Bureau, National Housing Expo-

Have You a Marking Problem?

MARKEM can help you

Appearance and legibility are essential to good marking but speed, versatility and low cost are equally important. Markem's 38 years of experience building machines for package and product marking and developing quick-drying inks, have resulted in cost saving, time saving methods.

WHEN YOU WANT IT, AS YOU WANT IT —

With Markem machines marking is done in your own plant, as you want it, when you want it. No problem of overstocked or understocked label or box inventories. No outside printing costs.

Send us samples of your package or product, with the variable information to be imprinted. Or have a Markem representative call.

MARKEM MACHINE CO., KEENE, N. H.

Please have your Markem representative call ☐.
We are sending samples of product ☐, package ☐,
with information to be imprinted.

Name

Company

Address

ASK
STOKES

To control "Leakers" and "Seepers" ... To prevent Oxidation ...

THE Stokes-patented Westite Hermetic Closure assures positive sealing of oily mixtures . . . of those that tend to oxidize or seep . . . of certain specialties that are difficult to package in tubes.

It also gives positive protection for such products when they must remain in storage, or travel under export conditions of extragavant heat and humidity.

For ordinary products, from aqueous fluids to heavy pastes, there are Stokes machines of every needed type to fill, close, and seal tubes.

Small hand-operated 4-gross-per-hour models to completely automatic 3000-per-hour jobs enjoy the same reputation for accuracy of measurement and perfection of seal.

Ease of change-over for material or size of tube, ease of cleaning, and long-time durability at capacity speed are characteristic of all Stokes machines for filling, closing, sealing tubes.

F. J. Stokes Machine Co.,
5932 Tabor Rd., Phila. 20, Pa.



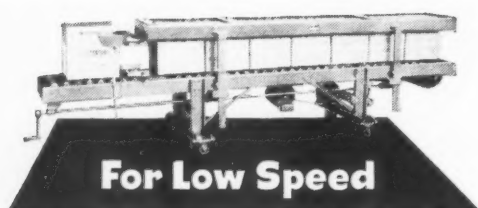
Stokes makes Tablet Machines, Pharmaceutical equipment, Tube Fillers, Vacuum and Special Processing equipment, Vacuum Pumps and Gages, Plastics Molding Presses, Water Stills, and Special Machinery.

Permanent bottom sealing of these and many other tube-packed products is assured by Westite Hermetic Closure. Westite stays tight.

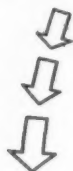


STOKES

KNOWS
HOW



For Low Speed



Where total volume is small, or where small runs are handled periodically, PACKOMATIC's hand-glue, belt compression sealer is a preferred unit for the manual application of adhesive and compression sealing of cases. Equipment has feed table, glue pot and brush. Only one operator is required.



For production requirements up to 3,000 cases per hour, PACKOMATIC's automatic Model D shipping case gluer, with belt compression sealer is recommended. Unit is adaptable . . . flexible. Write for literature, or consult classified directory for nearest PACKOMATIC office. J. L. Ferguson Company, Route 52 at Republic Avenue, Joliet, Illinois.

PACKOMATIC
PACKAGING MACHINERY
J. L. FERGUSON CO. JOLIET, ILL.

Chicago • New York • Boston
Philadelphia • Baltimore
Cleveland • San Francisco
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Portland • Tampa • Dallas
New Orleans

Announcing

EXCELLO-SEAL POLYFOIL

Polyethylene film laminated to Aluminum Foil

A new vapor-barrier material ideal for heat-sealed bags, pouches, envelopes, and automatic packaging machinery. **Perfect dead fold qualities.**

Available in various gauges, up to 50" wide.

Information and samples supplied promptly upon request.

THE FLOYD A. HOLES COMPANY
BEDFORD, OHIO

● Laminating and Coating Specialists ●

sition, Central Pier, Atlantic City, N. J., stating the hotel, rate and type of accommodations preferred.

Two "side shows" at Convention Hall are expected to be popular features. A Packaging Theatre will be set up in which films supplied by the various exhibitors will be run continuously on a large screen—making it possible for visitors to sit down and see these educational films at their leisure, instead of crowding the aisles of the exhibit area. The Assn. of American Railroads will demonstrate loadings of freight cars pulled in on the tracks inside Convention Hall.

The Conference program, originally planned for only three morning sessions, was, at last reports, going to extend to six sessions, with a possibility that two of these might run concurrently. The detailed program and speakers will be announced next month, but in the meantime it can be revealed that it is being organized around these general subjects:

1. Better organization and administration of the packaging, packing and shipping function.
2. Closer coordination of packaging, packing and shipping with production and sales.
3. Effective use of packaging in advertising, sales promotion and at the retail outlet to increase sales.
4. Design of packages to better meet physical handling requirements during distribution.
5. Improved shipping techniques to reduce loss through damage.
6. Better selection of packaging materials to meet product and production requirements.
7. More efficient plant layout, packaging machinery and packaging methods to cut costs.

One session will be devoted to technical subjects.

Emphasis is being placed this year on the national character of the packaging show, but it might rightfully lay claim to an international status. The AMA reports that inquiries so far indicate visitors will come from a dozen countries, ranging from Australia to Europe, while Canada will send its usual delegation of several hundred. Despite its record size, exhibit space at press time still was available in the huge Convention Hall. Arrangements can be made through the Exposition managers, Clapp & Poliak, Inc., 350 Fifth Ave., New York.

Fruit cakes baked in gift tins

Fruit cakes may be successfully baked in the same lithographed metal gift boxes in which the cake is sold, without marring the lithography on the tins, reports the Can Mfrs. Institute. Experiments were made in the testing bakery of The Nulomoline Co. in New York City. The idea was conceived by James A. King, vice president and director of the testing bakery of The Nulomoline Co. (subsidiary of American Molasses Co.), who believes this new process will be of interest to the commercial bakers and will greatly increase the use of lithographed metal gift boxes for packaging fruit cakes and other baked goods.

FOR BETTER PACKAGING!

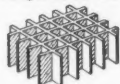


PARTITIONS

**THAT PROTECT AND
SAFEGUARD YOUR PRODUCTS**

**IMMEDIATE ATTENTION
Given to Requests for Estimates**

**Prompt Deliveries
Guaranteed**



**Reasonable Prices
Assured**

WRITE, PHONE, WIRE for QUOTATIONS on YOUR REQUIREMENTS

**PETER
PARTITION
CORP.**

**Manufacturers of
Paper Board
Partitions**

**19-21 HEYWARD STREET
BROOKLYN 11, N. Y.
Telephone: TRIangle 5-4033**

QUALITY CANS • QUALITY SERVICE



The primary service aim of Eastern Can Co. is to prevent the occurrence of packaging problems and complications which may cause our customers troublesome delays. To this end, Eastern performs a variety of research functions and certifies that all deliveries will be made promptly. Visit our sample show room before you purchase.

EASTERN CAN COMPANY, INC.

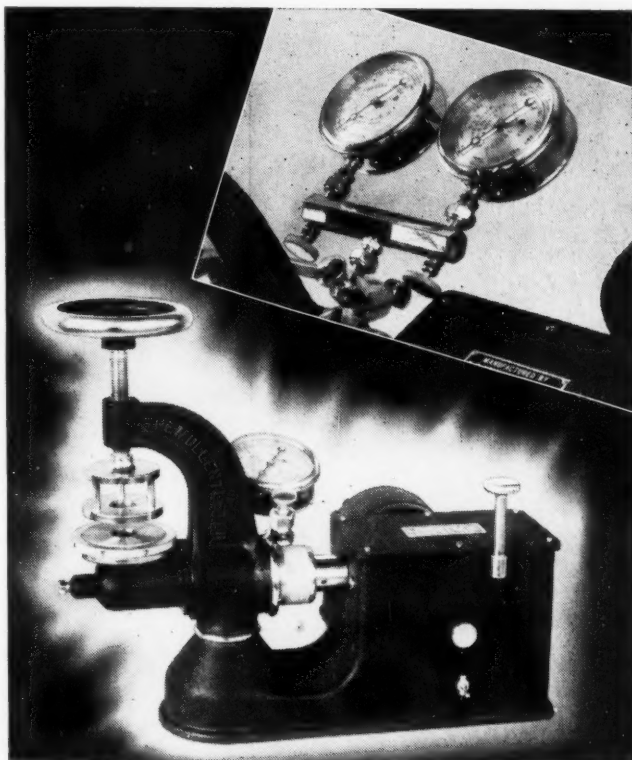
Keap Street, Wythe & Kent Avenue, Brooklyn 11, N. Y.

Phone: ULster 5-0100

MARCH 1949

Mullen Test

*Recognized the world over
as standard bursting test*



Motor-Driven Model A Mullen Tester[®]

Tests specimens with bursting strengths above 200 pounds per square inch. Note two gauge-mounting by use of manifold for testing materials of widely different strengths.

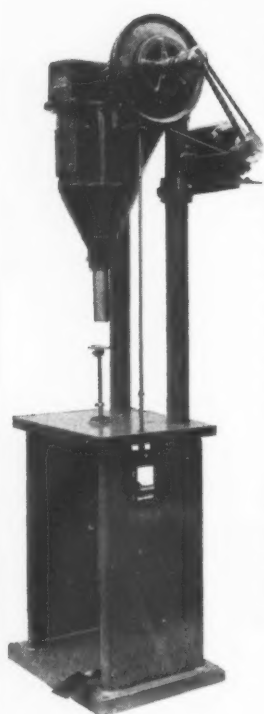
Especially designed for testing corrugated as well as other materials. Conforms to ASTM and TAPPI standards.

Send for booklet illustrating and describing the entire Perkins line of Testers.

B. F. PERKINS & SON, Inc.

Engineers and Manufacturers

Holyoke, Massachusetts



Model SA Augur packer.

Controlled

AUGUR FILL

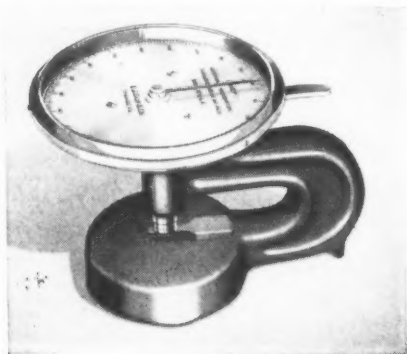
Model SA heavy duty augur packer for filling all types of containers requiring loose or pressure pack. Dry or semi paste products. Optional sensitive beam control, adjustable pressure weight or cam flow. Powerful with oversize parts and clutch, slow speed agitation. Interchangeable augurs and tubes. Capacity 1 oz to 10 lbs.

Ask for catalog No. 48 illustrating this machine and other net weighers, fillers, sealers, coupon inserters, elevating machinery. Volumes from milligrams to 100 lbs and speeds from 10 to 150 per minute or more.



WEIGH RIGHT AUTOMATIC SCALE COMPANY
JOLIET • ILLINOIS • U. S. A.

Corrugated Liner MICROMETER



for calipering thicknesses of finished liners

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Commerce Dept. reports trend

Some price reductions in containers and packages are foreseen for the second half of this year, according to a field office survey reported by the United States Department of Commerce. The Department notes, however, that prices for the remaining months of the first half of 1949 are expected to remain fairly stable.

"Containers and Packaging Industry Report," the Department's quarterly publication just issued, states that the consensus of opinion among users and manufacturers is that a buyers' market is developing in the packaging industry.

The raw materials outlook for the production of all types of containers is generally good. About the same quantity of steel consumed by the industry in 1948 will be available this year, but some manufacturers may not be able to obtain all of the sheet steel and nails they need, according to the report.

Supplies of tin, lead and aluminum, including foil, are still fairly tight, it is said, but paper and paperboard, lumber and raw materials for glass production will become increasingly plentiful during the year.

Current production and shipments of most categories of paper and paperboard containers are at near peak levels and demand is being readily met.

Strong demand for practically all types of metal containers shows definite signs of easing. Current orders are being readily filled in all categories except for a relatively few items including fluid milk shipping containers and beer cans.

Glass containers are plentiful and the production outlook for the first half of this year appears to be fairly satisfactory. Demand is not too strong at present, but it is expected to improve with the coming of spring.

Demand for wooden containers during the winter has been below the like period last year, with production declines being reported from most areas. The general outlook for this segment of the container industry is not good so long as high production costs continue, according to the report.

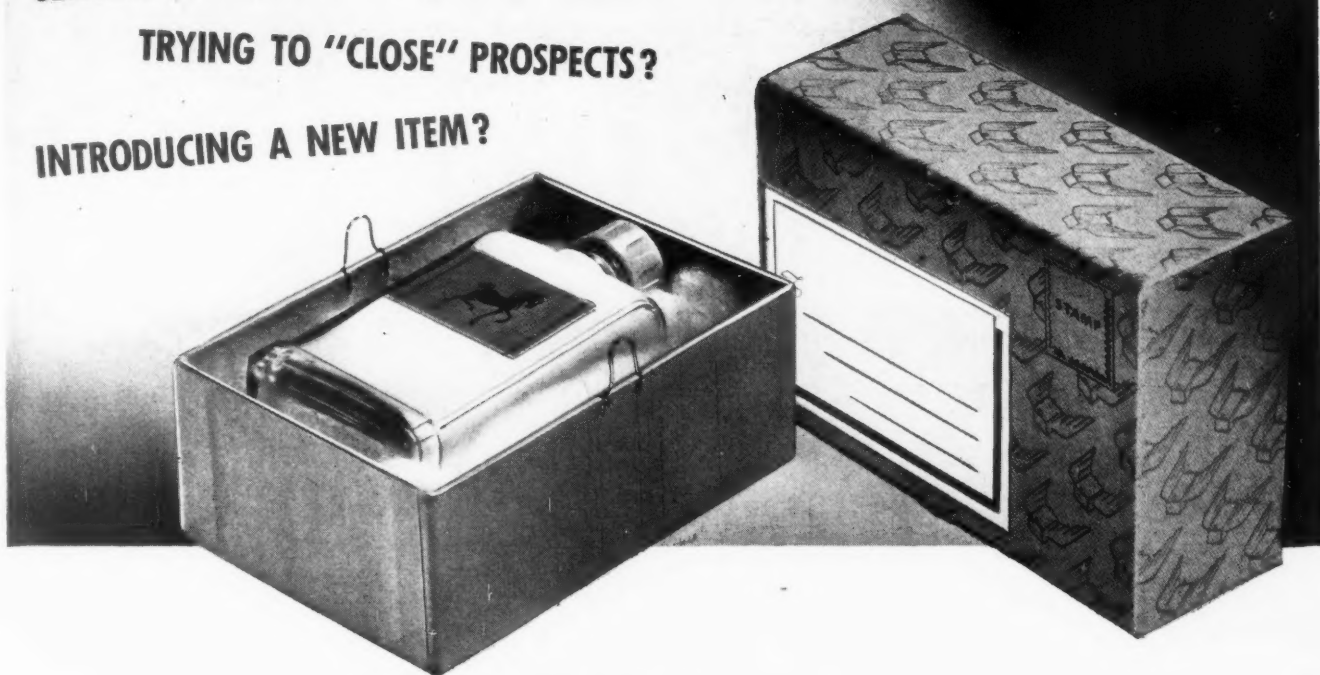
Production and demand for wooden containers in the Florida area has increased recently because of the heavy citrus crop and better marketing prospects resulting from damage to California fruit caused by recent snow storms.

Sales of textile bags are below previous years and prospects for improvement are not too good for the remainder of 1949, according to the Commerce report.

A correction

We inadvertently violated a "March" release date in publishing the item on p. 180 of our February issue regarding the starting of production of aluminum foil at Permanente Metals Corp.'s new Permanente, Calif., plant. Actually, the first shipment was scheduled to go out this month. Our apologies to Permanente Metals and to their customers who were given false hopes.

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VOLUMETRIC • 2 STAGE FILLERS IN LINE •
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This completely automatic system does the following:

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- (2) Assembles a paperboard box over the glassine liner,
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Has attachments for— $1\frac{5}{8} \times 4 \times 6$ deep

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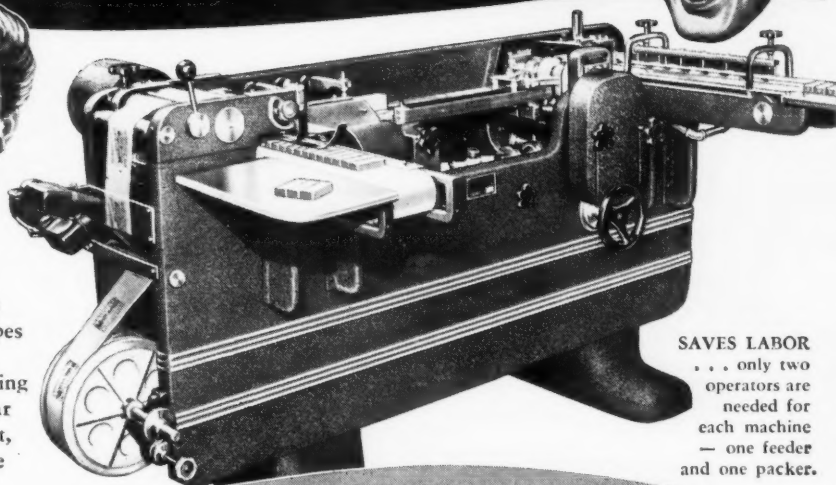
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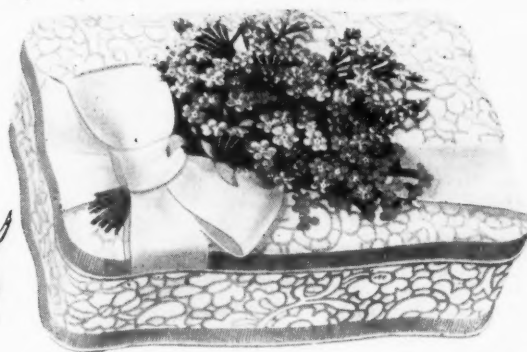
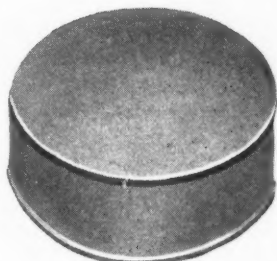
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which tin is the phony??

which will attract top year-round gift sales?



(1) A run-of-the-mill container. Drab in appearance, lacking eye-catching appeal, it fulfills only one purpose—it is a package for your product . . . the same as any ordinary paper container.

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- GIFT business is promoted by turning any of your items into year-round rich-looking gifts.
- RE-USE value as a beautiful, practical home accessory. Truly appreciated by the lady of the house, it will act as a daily reminder of your product. That means plenty of repeat sales.

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"Forget-Me-Nots"

SIZE: 6 1/2 x 4 1/4 x 1 3/4
FURNISHED with 2 die cut glossines and 1 layer board
PACKED: 50 to a carton DELIVERY: Early April
MINIMUM SHIPMENT: One carton
PRICE: Each per 1000: 45¢ Each per 100: 50¢
Each per single carton: 53¢

SEND FOR FURTHER PARTICULARS ON THE COMPLETE I. D. LINE OF FANCY AND EMBOSSED METAL CONTAINERS, WRITE TODAY!

Fancy Container Division

I. D. COMPANY

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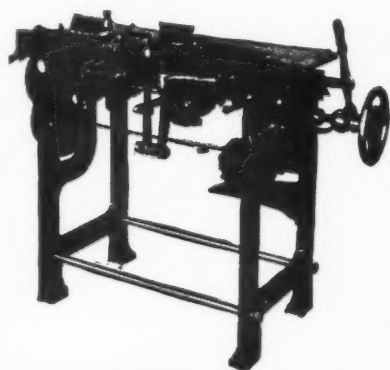
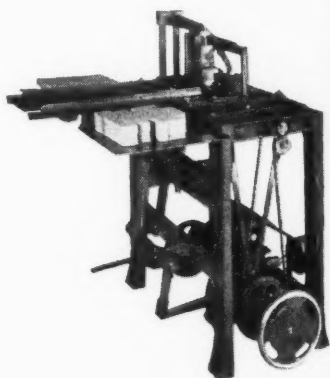
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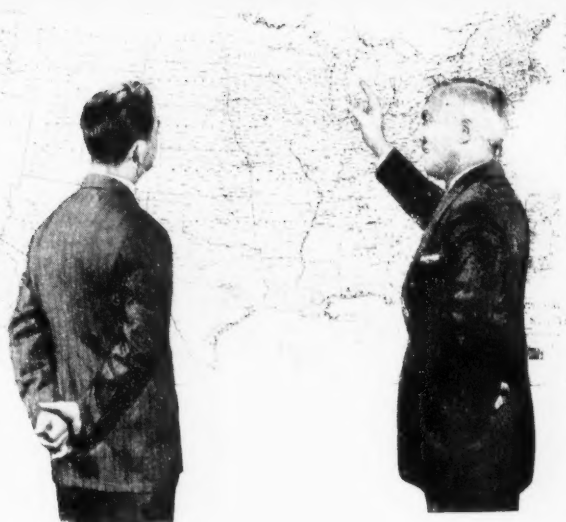
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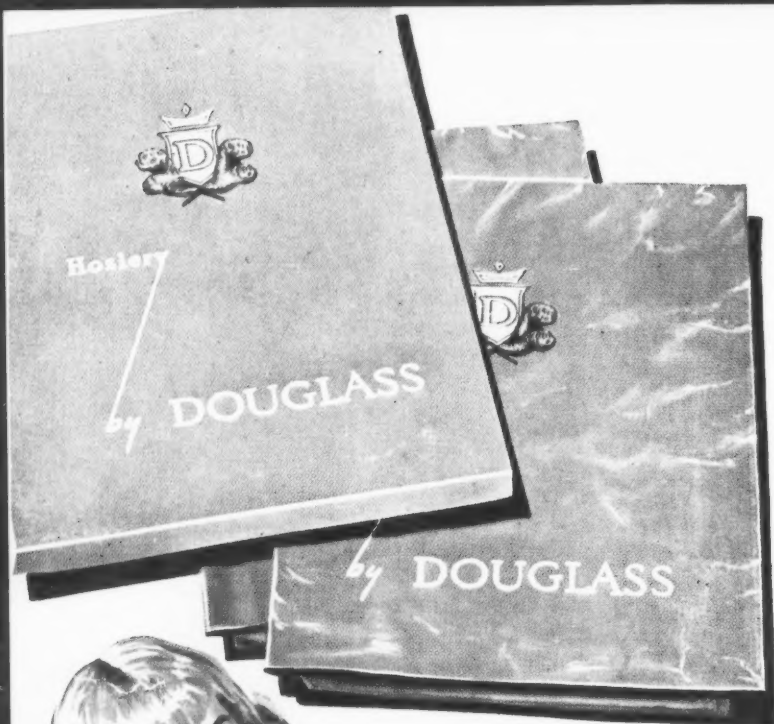
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